FLUOR FERNALD CLOSURE PLAN BASIS OF ESTIMATE

PBS-03 ON-SITE DISPOSAL FACILITY PROJECT

SEPTEMBER 2001

20100-PL-0023 REVISION 1

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 - 1.4.2 CECP2 OSDF Engineering Staff
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 - 1.1.3 CAEN5 OSDF CQC Services
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 - 1.2 Assumptions/Exclusions
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 - 1.4 Project Physical Description
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 - 1.5.1 CAEN1 OSDF Design
 - Task #1 OSDF CFC Package for Remaining Cell Liner and Final Cover Systems
 - 1.1) Subtask #1 Procurement
 - 1.1)1 Plan/Scope Procurement
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 - 1.2) Subtask #2 Preparation of OSDF CFC Package
 - 1.2)1 Plan/Scope Preparation of OSDF CFC Package
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 - 2) Task #2 Support for Procurement of OSDF Construction Subcontractor
 - 2.1) Plan/Scope
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 - 3.1)1 Plan/Scope
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 - 3.2) Subtask #2 Removal of Temporary and Interim Leachate Line CFC Package
 - 3.2)1 Plan/Scope
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 - 3.4)1 Plan/Scope
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 - 3.5)1 Plan/Scope
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Section 2: CAEN - OSDF Engineering (Continued)

- 4) Task #4 Other OSDF Activities in FY2001
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 - 4.2) Subtask #2 Provide Support for Review of OSDF Monitoring Data
 - 4.2)1 Plan/Scope
 - 4.2)2 Quantification
- 1.5.2 CAEN2-CAEN4 Not Used
- 1.5.3 CAEN5 OSDF CQC Services
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 - 2) Task #2 CQC Services
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 - 2.2) Subtask #2 CQC Services for OSDF Liners, Final Cover and Infrastructure Construction
 - 2.2)1 Plan/Scope
 - 2.2)2 Quantification
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 - 2.3)1 Plan/Scope
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- 1.5.4 CAEN6 OSDF Title III Services
 - 1) Task #1 Selection of OSDF Title III Subcontractor
 - 1.1) Plan/Scope
 - 1.2) Quantification
 - 2) Task #2 Title III Services
 - 2.1) Plan/Scope
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 - 1.2 Assumptions/Exclusions
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 - 1.2.3 Government-Furnished Equipment/Services
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 - 1.5 Project Plan/Technical Scope and Quantification
 - 1.5.1 CBSP1 OSDF Miscellaneous Infrastructure Projects
 - 1) Task #1 Submittals and Procurement
 - 1.1) Subtask #1 Submittals
 - 1.1)1 Plan/Scope Submittals
 - 1.1)2 Quantification Submittals
 - 1.2) Subtask #2 Procurement
 - 1.2)1 Plan/Scope Procurement
 - 1.2)2 Quantification Procurement
 - 2) Task #2 Relocation of Access Control Facility
 - 2.1) Plan/Scope
 - 2.2) Quantification
 - 3) Task #3 Phase II Temporary Leachate Removal
 - 3.1) Plan/Scope
 - 3.2) Quantification
 - 4) Task #4 Equipment Wash Certification
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 - 5) Task #5 Relocate Existing Stockpiles
 - 5.1) Plan/Scope
 - 5.2) Quantification
 - 6) Task #6 Permanent Power for Air Monitors and Relocation of Air Monitors
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 - 7.1) Plan/Scope
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 - 8) Task #8 Construction of New Laydown Area
 - 8.1) Plan/Scope
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 - 9) Task #9 Removal of Temporary Leachate Line Phase III
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- 10.1) Plan/Scope
- 10.2) Quantification
- 11) Task #11 Demolish Existing North Wheel Wash at Impacted Material Haul Road
 - 11.1) Plan/Scope
 - 11.2) Quantification
- 12) Task #12 Remove Underground/Above-Ground Interim Leachate Line
 - 12.1) Plan/Scope
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 - 13.1) Plan/Scope
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- 1.1 Overview
 - 1.1.1 CCPL1 OSDF Construction Matrixed Labor
 - 1.1.2 CCPL2 OSDF Borrow Area Development
 - 1.1.3 CCPL3 OSDF Placement
 - 1.1.4 CCPL4 OSDF Phase III Construction, Materials, Services
 - 1.1.5 CCPLA OSDF Cell #2 Cap
 - 1.1.6 CCPLB OSDF Cell #3 Cap
 - 1.1.7 CCPLC OSDF Cell #4 Liner
 - 1.1.8 CCPLD OSDF Cell #4 Cap
 - 1.1.9 CCPLE OSDF Cell #5 Liner
 - 1.1.10 CCPLF OSDF Cell #5 Cap
 - 1.1.11 CCPLG OSDF Cell #6 Liner
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 - 1.2.1.1 General Assumptions
 - 1.2.1.2 Specific Assumptions
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 - 1.2.3 Government-Furnished Equipment/Services
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- 1.5 Project Plan/Technical Scope and Quantification
 - 1.5.1 CCPL1 OSDF Construction Matrixed Labor
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 - 1.5.2 CCPL2 OSDF Borrow Area Development
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 - 1.1) Subtask #1 Submittals
 - 1.1)1 Plan/Scope
 - 1.1)2 Quantification
 - 1.2) Subtask #2 Procurement
 - 1.2)1 Plan/Scope
 - 1.2)2 Quantification
 - 2) Task #2 Site Preparation
 - 2.1) Plan/Scope
 - 2.2) Quantification
 - 3) Task #3 Excavate and Screen Clay Material
 - 3.1) Plan/Scope
 - 3.2) Quantification

- 4) Task #4 - Excavate and Stockpile Contouring Layer, Vegetative Layer and Topsoil Layer
 - 4.1) Plan/Scope
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 - 6.1) Plan/Scope
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- CCPL3 OSDF Placement 1.5.3
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 - 1.2) Quantification
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 - 2.1) Plan/Scope
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 - 3.1) Plan/Scope
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 - 4.2)Quantification
 - 5) Task #5 - Placement of the 12-Inch Protection Layer (Cell Liner)
 - 5.1) Plan/Scope
 - Quantification 5.2)
 - Task #6 Placement of 24 Inches of Select Impacted Material 6) (Cell Liner)
 - 6.1) Plan/Scope
 - 6.2) Quantification
 - Task #7 Place of 36 Inches Select Impacted Material (Cell Cap) 7)
 - 7.1) Plan/Scope
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 - 8.1) Plan/Scope
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 - 9.1) Plan/Scope
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- 1.5.4 CCPL4 - OSDF Phase III Construction, Materials, Services
 - Task #1 Submittals and Procurement
 - Subtask #1 Submittals
 - 1.1)1 Plan/Scope
 - 1.1)2 Quantification

- 1.2) Subtask #2 Procurement
 - 1.2)1 Plan/Scope
 - 1.2)2 Quantification
- 2) Task #2 OSDF Phase III Construction
 - 2.1) Plan/Scope
 - 2.2) Quantification
- 3) Task #3 Application of ConCover 180 in Cell #2 and Cell #3
 - 3.1) Plan/Scope
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- 4) Task #4 FY01 Impacted Material Placement
 - 4.1) Plan/Scope
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- 5) Task #5 OMTA Expansion/Transite Transfer Area
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 - 5.2) Quantification
- 6) Task #6 OMTA Operations/Bulk Debris
 - 6.1) Plan/Scope
 - 6.2) Quantification
- 1.5.5 CCPLA OSDF Cell #2 Cap
 - 1) Task #1 Submittals and Procurement
 - 1.1) Subtask #1 Submittals
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 - 1.1)2 Quantification
 - 1.2) Subtask #2 Procurement
 - 1.2)1 Plan/Scope
 - 1.2)2 Quantification
 - 2) Task #2 Site Preparation
 - 2.1) Plan/Scope
 - 2.2) Quantification
 - 3) Task #3 Contouring Layer
 - 3.1) Plan/Scope
 - 3.2) Quantification
 - 4) Task #4 Clay Cap
 - 4.1) Plan/Scope
 - 4.2) Quantification
 - 5) Task #5 Geosynthetic Cap
 - 5.1) Plan/Scope
 - 5.2) Quantification
 - 6) Task #6 Drainage Layer
 - 6.1) Plan/Scope
 - 6.2) Quantification
 - 7) Task #7 Biointrusion Barrier
 - 7.1) Plan/Scope
 - 7.2) Quantification

- 8) Task #8 Filter Layer
 - 8.1) Plan/Scope
 - 8.2) Quantification
- 9) Task #9 Vegetative Layer
 - 9.1) Plan/Scope
 - 9.2) Quantification
- 10) Task #10 Topsoil Layer
 - 10.1) Plan/Scope
 - 10.2) Quantification
- 11) Task #11 Permanent Vegetation
 - 11.1) Plan/Scope
 - 11.2) Quantification
- 12) Task #12 Closeout
 - 12.1) Plan/Scope
 - 12.2) Quantification
- 1.5.6 CCPLB OSDF Cell #3 Cap
 - 1) Task #1 Submittals and Procurement
 - 1.1) Subtask #1 Submittals
 - 1.1)1 Plan/Scope
 - 1.1)2 Quantification
 - 1.2) Subtask #2 Procurement
 - 1.2)1 Plan/Scope
 - 1.2)2 Quantification
 - 2) Task #2 Site Preparation
 - 2.1) Plan/Scope
 - 2.2) Quantification
 - 3) Task #3 Contouring Layer
 - 3.1) Plan/Scope
 - 3.2) Quantification
 - 4) Task #4 Clay Cap
 - 4.1) Plan/Scope
 - 4.2) Quantification
 - 5) Task #5 Geosynthetic Cap
 - 5.1) Plan/Scope
 - 5.2) Quantification
 - 6) Task #6 Drainage Layer
 - 6.1) Plan/Scope
 - 6.2) Quantification
 - 7) Task #7 Biointrusion Barrier
 - 7.1) Plan/Scope
 - 7.2) Quantification
 - 8) Task #8 Filter Layer
 - 8.1) Plan/Scope
 - 8.2) Quantification

- 9) Task #9 Vegetative Layer
 - 9.1) Plan/Scope
 - 9.2) Quantification
- 10) Task #10 Topsoil Layer
 - 10.1) Plan/Scope
 - 10.2) Quantification
- 11) Task #11 Permanent Vegetation
 - 11.1) Plan/Scope
 - 11.2) Quantification
- 12) Task #12 Closeout
 - 12.1) Plan/Scope
 - 12.2) Quantification
- 1.5.7 CCPLC OSDF Cell #4 Liner
 - Task #1 Submittals and Procurement
 - 1.1) Subtask #1 Submittals
 - 1.1)1 Plan/Scope
 - 1.1)2 Quantification
 - 1.2) Subtask #2 Procurement
 - 1.2)1 Plan/Scope
 - 1.2)2 Quantification
 - 2) Task #2 Site Preparation
 - 2.1) Plan/Scope
 - 2.2) Quantification
 - Task #3 Clay Liner
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 - 3.2) Quantification
 - 4) Task #4 Primary and Secondary Geosynthetic Liners
 - 4.1) Plan/Scope
 - 4.2) Quantification
 - 5) Task #5 Primary and Secondary Drainage Layers
 - 5.1) Plan/Scope
 - 5.2) Quantification
 - 6) Task #6 Construction of Perimeter Clay Wedges and Access Ramp
 - 6.1) Plan/Scope
 - 6.2) Quantification
 - 7) Task #7 Catchment Area
 - 7.1) Plan/Scope
 - 7.2) Quantification
 - 8) Task #8 Video Inspection of HDPE Pipe
 - 8.1) Plan/Scope
 - 8.2) Quantification
 - 9) Task #9 Horizontal Monitoring Wells (HMW) #4 and #5
 - 9.1) Plan/Scope
 - 9.2) Quantification

- 10) Task #10 Closeout
 - 10.1) Plan/Scope
 - 10.2) Quantification
- 1.5.8 CCPLD OSDF Cell #4 Cap
 - 1) Task #1 Submittals and Procurement
 - 1.1) Subtask #1 Submittals
 - 1.1)1 Plan/Scope
 - 1.1)2 Quantification
 - 1.2) Subtask #2 Procurement
 - 1.2)1 Plan/Scope
 - 1.2)2 Quantification
 - 2) Task #2 Site Preparation
 - 2.1) Plan/Scope
 - 2.2) Quantification
 - 3) Task #3 Contouring Layer
 - 3.1) Plan/Scope
 - 3.2) Quantification
 - 4) Task #4 Clay Cap
 - 4.1) Plan/Scope
 - 4.2) Quantification
 - 5) Task #5 Geosynthetic Cap
 - 5.1) Plan/Scope
 - 5.2) Quantification
 - 6) Task #6 Drainage Layer
 - 6.1) Plan/Scope
 - 6.2) Quantification
 - 7) Task #7 Biointrusion Barrier
 - 7.1) Plan/Scope
 - 7.2) Quantification
 - 8) Task #8 Filter Layer
 - 8.1) Plan/Scope
 - 8.2) Quantification
 - 9) Task #9 Vegetative Layer
 - 9.10 Plan/Scope
 - 9.11 Quantification
 - 10) Task #10 Topsoil Layer
 - 10.1) Plan/Scope
 - 10.2) Quantification
 - 11) Task #11 Permanent Vegetation
 - 11.1) Plan/Scope
 - 11.2) Quantification
 - 12) Task #12 Closeout
 - 12.1) Plan/Scope
 - 12.2) Quantification

- 1.5.9 CCPLE OSDF Cell #5 Liner
 - 1) Task #1 Submittals and Procurement
 - 1.1) Subtask #1 Submittals
 - 1.1)1 Plan/Scope
 - 1.1)2 Quantification
 - 1.2) Subtask #2 Procurement
 - 1.2)1 Plan/Scope
 - 1.2)2 Quantification
 - 2) Task #2 Site Preparation
 - 2.1) Plan/Scope
 - 2.2) Quantification
 - 3) Task #3 Clay Liner
 - 3.1) Plan/Scope
 - 3.2) Quantification
 - 4) Task #4 Primary and Secondary Geosynthetic Liners
 - 4.1) Plan/Scope
 - 4.2) Quantification
 - 5) Task #5 Primary and Secondary Drainage Layers
 - 5.1) Plan/Scope
 - 5.2) Quantification
 - 6) Task #6 Construction of Perimeter Clay Wedges and Access Ramp
 - 6.1) Plan/Scope
 - 6.2) Quantification
 - 7) Task #7 Catchment Area
 - 7.1) Plan/Scope
 - 7.2) Quantification
 - 8) Task #8 Video Inspection of HDPE Pipe
 - 8.1) Plan/Scope
 - 8.2) Quantification
 - 9) Task #9 Horizontal Monitoring Well #6
 - 9.1) Plan/Scope
 - 9.2) Quantification
 - 10) Task #10 Closeout
 - 10.1) Plan/Scope
 - 10.2) Quantification
- 1.5.10 CCPLF OSDF Cell #5 Cap
 - 1) Task #1 Submittals and Procurement
 - 1.1) Subtask #1 Submittals
 - 1.1)1 Plan/Scope
 - 1.1)2 Quantification
 - 1.2) Subtask #2 Procurement
 - 1.2)1 Plan/Scope
 - 1.2)2 Quantification

- 2) Task #2 Site Preparation
 - 2.1) Plan/Scope
 - 2.2) Quantification
- 3) Task #3 Contouring Layer
 - 3.1) Plan/Scope
 - 3.2) Quantification
- 4) Task #4 Clay Cap
 - 4.1) Plan/Scope
 - 4.2) Quantification
- 5) Task #5 Geosynthetic Cap
 - 5.1) Plan/Scope
 - 5.2) Quantification
- 6) Task #6 Drainage Layer
 - 6.1) Plan/Scope
 - 6.2) Quantification
- 7) Task #7 Biointrusion Barrier
 - 7.1) Plan/Scope
 - 7.2) Quantification
- 8) Task #8 Filter Layer
 - 8.1) Plan/Scope
 - 8.2) Quantification
- 9) Task #9 Vegetative Layer
 - 9.1) Plan/Scope
 - 9.2) Quantification
- 10) Task #10 Topsoil Layer
 - 10.1) Plan/Scope
 - 10.2) Quantification
- 11) Task #11 Permanent Vegetation
 - 11.1) Plan/Scope
 - 11.2) Quantification
- 12) Task #12 Closeout
 - 12.1) Plan/Scope
 - 12.2) Quantification
- 1.5.11 CCPLG OSDF Cell #6 Liner
 - Task #1 Submittals and Procurement
 - 1.1) Subtask #1 Submittals
 - 1.1)1 Plan/Scope
 - 1.1)2 Quantification
 - 1.2) Subtask #2 Procurement
 - 1.2)1 Plan/Scope
 - 1.2)2 Quantification
 - 2) Task #2 Site Preparation
 - 2.1) Plan/Scope
 - 2.2) Quantification

- 3) Task #3 Clay Liner
 - 3.1) Plan/Scope
 - 3.2) Quantification
- 4) Task #4 Primary and Secondary Geosynthetic Liners
 - 4.1) Plan/Scope
 - 4.2) Quantification
- 5) Task #5 Primary and Secondary Drainage Layers
 - 5.1) Plan/Scope
 - 5.2) Quantification
- 6) Task #6 Construction of Perimeter Clay Wedges and Access Ramp
 - 6.1) Plan/Scope
 - 6.2) Quantification
- 7) Task #7 Catchment Area
 - 7.1) Plan/Scope
 - 7.2) Quantification
- 8) Task #8 Video Inspection of HDPE Pipe
 - 8.1) Plan/Scope
 - 8.2) Quantification
- 9) Task #9 Horizontal Monitoring Well (HMW) #7
 - 9.1) Plan/Scope
 - 9.2) Quantification
- 10) Task #10 Closeout
 - 10.1) Plan/Scope
 - 10.2) Quantification
- 1.5.12 CCPLH OSDF Cell #6 Cap
 - 1) Task #1 Submittals and Procurement
 - 1.1) Subtask #1 Submittals
 - 1.1)1 Plan/Scope
 - 1.1)2 Quantification
 - 1.2) Subtask #2 Procurement
 - 1.2)1 Plan/Scope
 - 1.2)2 Quantification
 - 2) Task #2 Site Preparation
 - 2.1) Plan/Scope
 - 2.2) Quantification
 - 3) Task #3 Contouring Layer
 - 3.1) Plan/Scope
 - 3.2) Quantification
 - 4) Task #4 Clay Cap
 - 4.1) Plan/Scope
 - 4.2) Quantification
 - 5) Task #5 Geosynthetic Cap
 - 5.1) Plan/Scope
 - 5.2) Quantification

- 6) Task #6 Drainage Layer
 - 6.1) Plan/Scope
 - 6.2) Quantification
- 7) Task #7 Biointrusion Barrier
 - 7.1) Plan/Scope
 - 7.2) Quantification
- 8) Task #8 Filter Layer
 - 8.1) Plan/Scope
 - 8.2) Quantification
- 9) Task #9 Vegetative Layer
 - 9.1) Plan/Scope
 - 9.2) Quantification
- 10) Task #10 Topsoil Layer
 - 10.1) Plan/Scope
 - 10.2) Quantification
- 11) Task #11 Permanent Vegetation
 - 11.1) Plan/Scope
 - 11.2) Quantification
- 12) Task #12 Closeout
 - 12.1) Plan/Scope
 - 12.2) Quantification
- 1.5.13 CCPLJ OSDF Cell #7 Liner
 - 1) Task #1 Submittals and Procurement
 - 1.1) Subtask #1 Submittals
 - 1.1)1 Plan/Scope
 - 1.1)2 Quantification
 - 1.2) Subtask #2 Procurement
 - 1.2)1 Plan/Scope
 - 1.2)2 Quantification
 - 2) Task #2 Site Preparation
 - 2.1) Plan/Scope
 - 2.2) Quantification
 - 3) Task #3 Clay Liner
 - 3.1) Plan/Scope
 - 3.2) Quantification
 - 4) Task #4 Primary and Secondary Geosynthetic Liners
 - 4.1) Plan/Scope
 - 4.2) Quantification
 - 5) Task #5 Primary and Secondary Drainage Layers
 - 5.1) Plan/Scope
 - 5.2) Quantification
 - 6) Task #6 Construction of Perimeter Clay Wedges and Access Ramp
 - 6.1) Plan/Scope
 - 6.2) Quantification

- 7) Task #7 Catchment Area
 - 7.1) Plan/Scope
 - 7.2) Quantification
- 8) Task #8 Video Inspection of HDPE Pipe
 - 8.1) Plan/Scope
 - 8.2) Quantification
- 9) Task #9 Closeout
 - 9.1) Plan/Scope
 - 9.2) Quantification
- 1.5.14 CCPLK OSDF Cell #7 Cap
 - 1) Task #1 Submittals and Procurement
 - 1.1) Subtask #1 Submittals
 - 1.1)1 Plan/Scope
 - 1.1)2 Quantification
 - 1.2) Subtask #2 Procurement
 - 1.2)1 Plan/Scope
 - 1.2)2 Quantification
 - 2) Task #2 Site Preparation
 - 2.1) Plan/Scope
 - 2.2) Quantification
 - 3) Task #3 Contouring Layer
 - 3.1) Plan/Scope
 - 3.2) Quantification
 - 4) Task #4 Clay Cap
 - 4.1) Plan/Scope
 - 4.2) Quantification
 - 5) Task #5 Geosynthetic Cap
 - 5.1) Plan/Scope
 - 5.2) Quantification
 - 6) Task #6 Drainage Layer
 - 6.1) Plan/Scope
 - 6.2) Quantification
 - 7) Task #7 Biointrusion Barrier
 - 7.1) Plan/Scope
 - 7.2) Quantification
 - 8) Task #8 Filter Layer
 - 8.1) Plan/Scope
 - 8.2) Quantification
 - 9) Task #9 Vegetative Layer
 - 9.1) Plan/Scope
 - 9.2) Quantification
 - 10) Task #10 Topsoil Layer
 - 10.1) Plan/Scope
 - 10.2) Quantification

- 11) Task #11 Permanent Vegetation
 - 11.1) Plan/Scope
 - 11.2) Quantification
- 12) Task #12 Closeout
 - 12.1) Plan/Scope
 - 12.2) Quantification
- 2.0 Schedule
- 3.0 Manpower Plans
 - 3.1 OSDF Construction Matrixed Labor
- 4.0 Estimate
- 5.0 Risk Plan

Section 5: CDG1 - OSDF Controls and Management

- 1.0 Narrative
 - 1.1 Overview
 - 1.2 Assumptions/Exclusions
 - 1.2.1 Assumptions
 - 1.2.2 Exclusions
 - 1.2.3 Government-Furnished Equipment/Services
 - 1.3 Drivers
 - 1.4 Project Physical Description
 - 1.5 Project Plan/Technical Scope and Quantification
 - 1.5.1 CDG11 OSDF Controls and Management
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 - 1.1) Subtask #1 Submittals
 - 1.1)1 Plan/Scope
 - 1.1)2 Quantification
 - 1.2) Subtask #2 Procurement
 - 1.2)1 Plan/Scope
 - 1.2)2 Quantification
 - 2) Task #2 Stormwater Management and Erosion Control
 - 2.1) Plan/Scope
 - 2.2) Quantification
 - 3) Task #3 Catchment Area Control and Management
 - 3.1) Plan/Scope
 - 3.2) Quantification
 - 4) Task #4 Winterization of Access Control Trailers
 - 4.1) Plan/Scope
 - 4.2) Quantification
 - 5) Task #5 Installation and Repair Project Signs, Construction Signs, Barricades, Temporary Rad Fencing and Construction Fencing
 - 5.1) Plan/Scope
 - 5.2) Quantification
 - 6) Task #6 Repair of Paved and Unpaved Road and Pads Related to OSDF (Including Haul Roads, Borrow Area Haul Roads and Access Roads)
 - 6.1) Plan/Scope
 - 6.2) Quantification
 - 7) Task #7 Maintenance/Repair of Construction Water Wells and Temporary Water Lines
 - 7.1) Plan/Scope
 - 7.2) Quantification
 - 8) Task #8 Repair of Seeded Areas on Permanent Cap and In Borrow Area
 - 8.1) Plan/Scope
 - 8.2) Quantification

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Section 5: CDG1 - OSDF Controls and Management (Continued)

- 2.0 Schedule
- 3.0 Manpower Plans
 - 3.1 OSDF Controls and Management (Includes subcontractor staff/craft)
- 4.0 Estimate
- 5.0 Risk Plan

LIST OF ACRONYMS AND ABBREVIATIONS

ASTM American Society of Testing and Materials

CQA construction quality assurance CQC construction quality control

D&D decontamination and dismantlement

DOE US Department of Energy

EPA US Environmental Protection Agency

EPLTS enhanced permanent leachate transfer system
ESH&Q Environmental Safety, Health and Quality
FEMP Fernald Environmental Management Project

FTE full-time equivalent

FY fiscal year

GCL geotextile cushion layer
GML geomembrane liner
HDPE high-density polyethylene

HWMU hazardous waste management unit

ICY in-place cubic yard

LCS leachate collection system

OEPA State of Ohio Environmental Protection Agency

OMTA OSDF material transfer area
OSDF On-Site Disposal Facility
PCN Page Change Notice

RCI request for clarification of information
RCRA Resource Conservation and Recovery Act

RFP Request For Proposal

SMTA Special Material Transfer Area

SOW Statement of Work

SP soil pile

SSC structure, system and component

SSR Standard Start-up Review STP Sewage Treatment Plant

SVOC semi-volatile organic compound

SWM&EC stormwater management and erosion control

SWU Southern Waste Unit
WAC waste acceptance criteria

WAO Waste Acceptance Organization

WGS Waste Generator Services

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WBS DICTIONARY CONTROL ACCOUNT/CHARGE NUMBER

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1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
DE-AC24-010H20115		27
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.C	PBS 03 ON-SITE DISPOSAL FACILITY	
7. APPROVED CP NO.		8. DATE OF CHANGES
NEW PER CP# FY01-0115-0003-00		12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCL/ACA	EW05H3030	

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts
Other Direct Costs (ODCs)

b. TECHNICAL CONTENT:

Consistent with the Amended Consent Agreement (ACA), Consent Decree, National Contingency Plan (NCP), appropriate United States Environmental Protection Agency (USEPA) guidance and Department of Energy (DOE) Orders, a Remedial Investigation/Feasibility Study (RI/FS) was conducted for Operable Unit 2 (OU2). Based on the OU2 RI/FS, a Record of Decision was issued which requires the Fernald Environmental Management Project (FEMP) to design and construct an On-Site Disposal Facility (OSDF) for disposal of impacted materials and waste generated during site remediation.

This element provides for the construction and maintenance of an OSDF and support facilities, receipt and placement of wastes and impacted materials, facility closure, post-closure monitoring and maintenance, decontamination/control access roads, and run-on/run-off stormwater controls. This element also covers the design and construction of the borrow area(s).

The OSDF will be constructed with a composite liner of soil and geosynthetics. Impacted materials and remediation wastes, that meet the waste acceptance criteria established in the Records of Decision for the ACA-designated Operable Units at the FEMP, will be placed on the liner system. A composite cap of soil and geosynthetic will be constructed above the impacted materials and waste and tied-in with the liner system.

OSDF will complete the design and construction of the permanent leachate conveyance and leak detection system. This includes the Enhanced Permanent Leachate Transmission System through Valve House No. 6 (EPLTS). In addition, construction of air monitors and groundwater monitoring wells as well as

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	,
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
DE-AC24-010H20115		27
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.C	PBS 03 ON-SITE DISPOSAL FACILITY	
7. APPROVED CP NO.		8. DATE OF CHANGES
NEW PER CP# FY01-0115-0003-00		12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCL/ACA	EW05H3030	
11. ELEMENT TASK DESCRIPTION		

maintenance performed on the leachate system during FY01 are also included.

c. SCOPE OF WORK:

The scope is further defined in these subordinate elements:

- 1.1.C.A OSDF Management and Oversight
- 1.1.C.B OSDF Engineering
- 1.1.C.C OSDF Infrastructure Construction
- 1.1.C.D OSDF Construction
- 1.1.C.E OSDF Controls and Management

Work specifically excluded:

- Phase II of the main phone line trunk relocation in the OSDF footprint. These phone lines will be relocated by D&D as part of their utility relocation
- Design and construction of the EPLTS, Phase II (Valve House No. 7), by PBS 04
- Groundwater/leak detection monitoring by PBS 04
- Leachate system maintenance by PBS 04
- Any alterations to the tie between the Bio-Surge Lagoon and AWWT are the responsibility of Aquifer
- OSDF maintenance and stewardship monitoring performed by others during the Soils/OSDF shutdown period
- Centralized services

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
DE-AC24-010H20115		28
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.C.A	MANAGMENT	
7 APPROVED CP NO.		8. DATE OF CHANGES
CHANGE PER CP# FY01-0115-0003	-00	12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCLA/ACA	EW05H3030	

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor Materials ODCs Subcontracts

b. TECHNICAL CONTENT:

Project staff assigned to manage the work of PBS-03 consists of all project management, administration, clerical support, project compliance, enegineering, surveying, construction, certain discipline leads (i.e., Safety and Health, Rad Engineering, Project Controls and Procurement), and other as needed/matrixed general discipline support staff (e.g., QC schedulers and cost analysts). In general, this is a level of effort account. To the extent necessary, a constant level of staff will be maintained between FY2005 through FY2009 to ensure availability of critical skills and sufficient project support. Due to reduced workloads, a lower level of staff will be maintained before FY2005 and after FY2009 through project completion.

c. SCOPE OF WORK:

Staff labor covers Fluor Fernald, teaming partner and staff augmentation (BOA) personnel. The baseline assumes all staff will be covered under labor. It may be necessary, however, to hire subcontract personnel with specific skills for some tasks. When this occurs, a budget transfer will be made to shift labor to subcontract.

The following scope and/or costs are not included in this control account:

-matrixed labor required to support specific engineering and construction tasks;

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
DE-AC24-010H20115		28
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.C.A	MANAGMENT	
7. APPROVED CP NO.		8. DATE OF CHANGES
CHANGE PER CP# FY01-0115-000	3-00	12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCLA/ACA	EW05H3030	
11. ELEMENT TASK DESCRIPTION -training of matrixed labor		
	t, materials, PPE, trailers, utilit mputer hardware and software direct nstruction tasks; and	
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WORK SCOPE DEFINITION (Control Account)				
1. PROJECT TITLE		2. DATE		
FEMP (DEFENSE)		09/05/2001	Page 1	
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME		
1.1.C.A	MANAGMENT			
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER	
49	JD CHIOU /648	3-3726	JD CHIOU	
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE			
EW05H3030	ON-SITE DISPO	SAL FACILITY		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW	SCOPE?		11. ESTIMATED START / COMPLETION DATE	
CHANGE PER CP#FY01-0115-0003-	00		12/00 - 12/09	
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ON	IE LINE)		
CECP	OSDF MANAGEME	ENT AND OVERSIGH	T	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor Subcontractors Other Direct Costs (ODCs) Materials

b. TECHNICAL CONTENT:

This work package covers the staff and expenses required to manage the OSDF project. This is a level of effort account. To the extend necessary, a constant level of staff will be maintained between FY2005 through FY2009 to ensure availability of critical skills an sufficient project support. Lower levels of staffing will be maintained before and after this period consistent with the ramp up and ramp down of the project. Please refer to the work scope definition below for specific types of resources covered in this account.

c. SCOPE OF WORK:

- Covers the following staff resources
 - * Project Management
 - * Project Controls
 - * Procurement
 - * Administrative support
- * Discipline leads, other than engineering & construction (includes Health & Safety, QA/QC
 - Office supplies & expenses for the entire soils project including:
 - * Specialized CADD equipment
 - * Professional dues & licenses

Project Manager	Control Account Manager	Control Team Manager	
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WORK SCOPE DEFINITION (Control Account)			
1. PROJECT TITLE		2. DATE	
femp (defense)		09/05/2001	Page 2
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME		
1.1.C.A	MANAGMENT		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE		7. WBS ELEMENT MANAGER
49	JD CHIOU /648-3726		JD CHIOU
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPOSAL FACILITY		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE	
CHANGE PER CP#FY01-0115-0003-00			12/00 - 12/09
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)		
CECP	OSDF MANAGEMENT AND OVERSIGHT		

14. ELEMENT TASK DESCRIPTION

- * Relocation expenses
- Travel and training expenses for those project staff charging this account.

d. WORK SPECIFICALLY EXCLUDED:

Matrixed labor and training/relocation of matrixed labor

OSDF staff charging other charge numbers in control account CECP (engineering, construction)

Cost for travel, equipment, materials, trailers, utilities, shipping/transportation directly associated with specific area remediation or natural resources restorations accounts.

All centralized services provided by other PBSs.

	WORK SCOP (Work P	E DEFINITION Package)	
1. PROJECT TITLE		2. DATE	
FEMP (DEFENSE)		09/05/2001	Page 1
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME	
1.1.C.A	MANAGMENT		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER
49	JD CHIOU/648-	3726	JD CHIOU
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPO	SAL FACILITY	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?		11. ESTIMATED START / COMPLETION DATE
CHANGE PER CP# FY01-0015-0003	-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	IE LINE)	
CECP1	OSDF MANAGEME	ENT AND OVERSIGH	T

a. ELEMENTS OF COST:

Labor Subcontractors Other Direct Costs (ODCs) Materials

b. TECHNICAL CONTENT:

This work package covers the staff and expenses required to manage the OSDF project. This is a level of effort account. To the extend necessary, a constant level of staff will be maintained between FY2005 through FY2009 to ensure availability of critical skills an sufficient project support. Lower levels of staffing will be maintained before and after this period consistent with the ramp up and ramp down of the project. Please refer to the work scope definition below for specific types of resources covered in this account.

c. SCOPE OF WORK:

Covers the following staff resources

- * Project Management
- * Project Controls
- * Procurement
- * Administrative support
- * Discipline leads, other than engineering & construction (includes Health & Safety, QA/QC

Office supplies & expenses for the entire OSDF project including:

- * Specialized CADD equipment
- * Professional dues & licenses

Project Manager	Control Account Manager	Control Team Manager	_

	WORK SCOP (Work P	E DEFINITION Package)	
1. PROJECT TITLE		2. DATE	
FEMP (DEFENSE)		09/05/2001	Page 2
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME	
1.1.C.A	MANAGMENT		·
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER
49	JD CHIOU/648-	3726	JD CHIOU
BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPO	SAL FACILITY	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW	SCOPE?		11. ESTIMATED START / COMPLETION DATE
CHANGE PER CP# FY01-0015-0003	-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	IE LINE)	
CECP1	OSDF MANAGEME	ENT AND OVERSIGH	T

* Relocation expenses

Travel and training expenses for those project staff charging this account.

d. WORK SPECIFICALLY EXCLUDED:

Matrixed labor and training/relocation of matrixed labor

OSDF staff charging other charge numbers in control account CECP (engineering, construction)

Cost for travel, equipment, materials, trailers, utilities, shipping/ transportation directly associated with specific area remediation or natural resources restorations accounts.

All centralized services provided by other PBSs.

	WORK SCOP (Work P	E DEFINITION Package)	
1. PROJECT TITLE		2. DATE	
FEMP (DEFENSE)	<u></u>	09/05/2001	Page 1
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME	
1.1.C.A	MANAGMENT		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER
49	JD CHIOU (372	(6)	JD CHIOU
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPO	SAL FACILITY	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0015-0003-00	•		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	E LINE)	
CECP2	OSDF ENGINEER	RING STAFF	

a. ELEMENTS OF COST:

Labor ODCs

b. TECHNICAL CONTENT:

This work package covers the engineering staff and expenses required for the OSDF project. This is a level of effort account. To the extent necessary, a constant level of staff will be maintained between FY2005 through FY2009 to ensure availability of critical skills an sufficient project support. Lower levels of staffing will be maintained before and after this period consistent with the ramp up and ramp down of the project. Please refer to the work scope definition below for specific types of resources covered in this account.

c. SCOPE OF WORK:

Covers the following staff resources

- * Engineering Manager,
- * Project engineers
 - * Other engineering staff as necessary

Travel and training expenses for those project staff charging this account.

d. WORK SPECIFICALLY EXCLUDED:

Matrixed labor and training/relocation of matrixed labor

Project Manager	Control Account Manager	Control Team Manager	
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·	WORK SCOP (Work P	E DEFINITION (ackage)	
1. PROJECT TITLE		2. DATE	
FEMP (DEFENSE)		09/05/2001	Page 2
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAM	ME	
1.1.C.A	Managment		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHON	NE	7. WBS ELEMENT MANAGER
49	JD CHIOU (372	6)	JD CHIOU
BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPO	SAL FACILITY	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0015-0003-00			12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	E LINE)	
CECP2	OSDF ENGINEER	RING STAFF	

Soils staff charging other charge numbers in control account CECP (Mgmt & Oversight, construction)

Cost for travel, equipment, materials, trailers, utilities, shipping/ transportation directly associated with specific area remediation or natural resources restorations accounts.

All centralized services provided by other PBSs.

	WORK SCOP (Work P	E DEFINITION Package)	
1. PROJECT TITLE		2. DATE	
FEMP (DEFENSE)		09/05/2001	Page 1
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME	
1.1.C.A	MANAGMENT		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER
49	JD CHIOU (372	(6)	JD CHIOU
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPO	SAL FACILITY	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0015-0003-00			12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	IE LINE)	·
CECP3	OSDF CONSTRUC	TION MANAGEMENT	

a. ELEMENTS OF COST:

Labor Material Subcontracts ODCs

b. TECHNICAL CONTENT:

This work package covers the construction management staff and expenses required for the OSDF project. This is a level of effort account. To the extent necessary, a constant level of staff will be maintained between FY2005 through FY2009 to ensure availability of critical skills an sufficient project support. Lower levels of staffing will be maintained before and after this period consistent with the ramp up and ramp down of the project. Please refer to the work scope definition below for specific types of resources covered in this account.

c. SCOPE OF WORK:

Includes charges cross walked from charge number CCC21 for CM support performed during FY01 after December 1, 2000.

Covers the following staff resources

- * Construction Manager,
- * Construction Contracts Managers
- * Construction Engineers
- * Construction Coordinators
- * Other projectized construction staff as necessary to complete the OSDF

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Project Manager	Control Account Manager	Control Team Manager
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	WORK SCOP (Work P	E DEFINITION Package)	
1. PROJECT TITLE		2. DATE	
FEMP (DEFENSE)		09/05/2001	Page 2
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAI	ME	
1.1.C.A	Managment		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER
49	JD CHIOU (372	:6)	JD CHIOU
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPO	SAL FACILITY	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0015-0003-00			12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	IE LINE)	
CECP3	OSDF CONSTRUC	TION MANAGEMENT	

construction projects.

Fluor furnished construction materials not specific to one of the OSDF construction accounts.

Travel and training expenses for those project staff charging this account.

d. WORK SPECIFICALLY EXCLUDED:

Matrixed labor and training/relocation of matrixed labor

OSDF staff charging other charge numbers in control account CECP (Mgmt & Oversight, engineering)

Cost for travel, equipment, materials, trailers, utilities, shipping/ transportation directly associated with specific area remediation or natural resources restorations accounts.

All centralized services provided by other PBSs.

SECTION 1 1.0 NARRATIVE

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1. PROJECT TITLE:	2. DATE: 09/10/01	3. PBS#: 03
ON-SITE DISPOSAL FACILITY PROJECT		
4. WBS ELEMENT CODE:	5. WBS ELEMENT TITLE:	
1.1.C.A.	OSDF PROJECT MANA	AGEMENT
6. CAM NAME/ PHONE:	7. CAM SIGNATURE:	
JYH-DONG CHIOU/ 3726		
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: C	ECP

SECTION 1: CECP - OSDF PROJECT MANAGEMENT

1.0 NARRATIVE

1.1 OVERVIEW

OSDF Project Management covers all the projectized technical staff, projectized/matrixed project support staff, and associated other direct management costs necessary to plan, conduct, support, manage and complete the scopes of the OSDF engineering, infrastructure, construction, and operation. This control account also includes the purchase of all office supplies and project specific office equipment, software, mail, training expenses, fees and licences, and relocation expenses for projectized staff. Work scope-related travel by matrixed personnel will be covered in the appropriate engineering or construction account.

The levels of FTEs and other direct costs are consistent with the scheduled workloads and activities as specified in the other four control accounts in PBS-03. The estimated numbers of on-site subcontractor employees are also identified in this control account but only for the training and medical services planning purposes. These services are to be budgeted by centralized organizations. All the other centralized services to be provided by other PBSs are not included in this or any other control accounts of PBS-03.

OSDF Project Management has adopted a concept that safety is every employee's responsibility and continuous safety coverage at the job site can only be achieved by training and employee responsibility for safety functions. Training is part of the annual work load for every employee, and training costs are budgeted as part of the management account. Therefore, all OSDF field personnel will be trained to carry increased Health and Safety responsibilities, and Fluor Fernald Health and Safety professionals, will only need to support the projects on special occasions and perform audits, as indicated in the manpower planning. All subcontractor's will be required by contract to train their personnel in the same manner as well as to provide their own Health and Safety professionals. Fluor Fernald believes that this is a better and more efficient way to ensure safe operations and comply with all safety requirements.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

R1-D-612

PBS-03, ON-SITE DISPOSAL FACILITY PROJECT CLOSURE PLAN BASIS OF ESTIMATE 20100-PL-0023, Revision 1 September 2001

Project staff assigned to manage the work of PBS-03 consists of all project management, administration, clerical support, project compliance, engineering, surveying, construction, certain discipline leads (i.e., Safety and Health, Rad Engineering, Project Controls, and Procurement), and other as needed/matrixed general discipline support staff (e.g., QC, schedulers, and cost analysts). In general this is a level of effort account. To the extent necessary a constant level of staff will be maintained between FY2005 through FY2009 to ensure availability of critical skills and sufficient project support. Due to reduced workloads, a lower level of staff will be maintained before FY2005 and after FY2009 through project completion.

Staff labor covers Fluor Fernald, teaming partner and staff augmentation (BOA) personnel. For FY2001, the baseline includes subcontract costs for CQC services performed by the A&E contractor. These services beyond FY2001 are covered in control account CAEN. Also covered in FY2001 are subcontractor costs for Rad Tech support at the OSDF. These services are covered in control account CCPL beyond FY2001. The baseline assumes all future staff beyond FY2001will be covered under labor. It may be necessary, however, to hire subcontract personnel with specific skills for some tasks. When this occurs, a budget transfer will be made to shift budget from labor to subcontract.

1.2.2 Exclusions

The following scope and/or costs are not included in this control account:

- Matrixed labor required to support specific engineering and construction tasks;
- Training or relocation of matrixed labor;
- Engineering and construction subcontractor costs;
- Surveying equipment and supplies;
- Costs for travel, equipment, materials, trailers, utilities, shipping/transportation, computer hardware and software directly associated with specific engineering and construction tasks; and
- All centralized services provided by other PBSs.

1.2.3 Government-Furnished Equipment/Services

See other PBS-03 accounts for government-furnished equipment and services.

1.3 DRIVERS

See other PBS-03 accounts for drivers.

1.4 PROJECT PHYSICAL DESCRIPTION

Specific scope of the OSDF Project Management is further defined in the following three charge numbers.

1.4.1 CECP1 - OSDF Management and Oversight

 Project director, project compliance staff, discipline leads (i.e., Safety and Health, Rad Engineering, QC, Project Controls, and Procurement), other as needed project controls staff, and administrative and clerical staff necessary to manage and support the overall OSDF project. See attached manpower sheet 1CA01 for details.

Materials:

- Routine office supplies and equipment (Fluor Fernald "stores" and vendor supplied),
- Specialized computer equipment (CADD) including hardware, software (one replacement CADD computer systems and software licenses upgrades in FY05),
- Annual renewal of professional licenses for five people during the period FY2003 through FY2010; and
- Special paper and cartridges.

ODCs:

- One trip during FY2001 (two people) to perform QA inspections on OSDF Cap materials.
- Two trips annually to visit US EPA between FY2004 through FY2010.
- The following ODC allowances cover only costs incurred by project staff charging this account:
- Two projectized people annually between FY2005 through FY2009 to travel for professional development and/or training, including fees, car rental, airfare, and lodging up to three days each.
- Relocation expenses for one professional staff in FY2004 and one additional person in FY2005 to support the remobilization of the project following the shutdown; and

- Routine local mileage for use of personal vehicles to conduct business in the general area of the FEMP in FY2001 and FY2003 through FY2010.

1.4.2 CECP2 - OSDF Engineering Staff

Staff:

- Engineering Manager, Project Engineers, other engineering staff, and projectized surveying and CADD staff necessary to manage and/or conduct all the OSDF engineering tasks as defined in the OSDF Engineering Control Account. See attached manpower sheet 1CAO2 for details.

Materials:

No materials are expected to be charged to this account.

ODCs:

- The following ODC allowances only cover costs incurred by project staff charging this account:
- One projectized person annually between FY2005 and FY2009 to travel for professional development and/or training including fees, car rental, airfare, and lodging up to three days.
- Routine local mileage for use of personal vehicles to conduct business in the general area of the FEMP in FY2001 and FY2003 through FY2010.
- Domestic travel to occur in FY2002 for three projectized people to oversee Geosyntec work on cell design, including car rental, airfare and lodging up to three days.
- Domestic travel to occur in FY2004 through FY2009 for two projectized people to inspect and audit geocomposite clay liner/cap manufacturing plant, including car rental, airfare and lodging up to two days.
- Domestic travel to occur in FY2004 through FY2009 for two projectized people to inspect and audit geomembrane clay liner/cap manufacturing plant, including car rental, airfare and lodging up to two days.

 Domestic travel to occur in FY2004 through FY2009 for one projectized person to conduct a quality audit of geosynthetic testing lab, including car rental, airfare and lodging up to two days.

1.4.3 CECP3 – OSDF Construction Management

Staff:

 Construction Manager, Construction Contract Managers, Construction Engineers, Construction Coordinators and other projectized construction support staff necessary to manage all the OSDF construction tasks as defined in the OSDF Infrastructure, OSDF Construction, and OSDF Operation Control Accounts. See attached manpower sheet 1CAO3 for details.

Materials:

- For FY2001 through FY2010, allow for miscellaneous maintenance and construction materials and supplies per the following list:
- Miscellaneous maintenance materials, hand tools, and supplies,
- Project-specific vehicle procurement, replacement, repair, preventive maintenance,
- Gasoline, garage materials and expense,
- Fencing, rad rope, field signs, and postings not specific to an area project,
- Project-specific PPE (e.g., hard hats, anti-Cs, respirator cartridges, gloves/with liners, ear plugs, duct tape),
- R1-D-616
- Other non-standard PPE and field clothes (e.g., safety classes, safety vests, rain gear, sweat bandanas, Carharts, hats, wool/cotton gloves, extra tall field boots, water-resistant field boots, bug sprays, flush flash lights), and
- Safety monitoring equipment (e.g. BZ monitors, PID).

• ODCs:

- For FY2001, one trip to Weldon Spring to investigate design criteria for the Cell 1 cap.
- The following ODC allowances cover only costs incurred by project staff charging to this account.

PBS-03, ON-SITE DISPOSAL FACILITY PROJECT CLOSURE PLAN BASIS OF ESTIMATE 20100-PL-0023, Revision 1 September 2001

- Allowance for one projectized person annually between FY2005 and FY2009 to travel for professional development and/or training, including fees, car rental, airfare, and lodging up to three days.
- Routine local mileage for use of personal vehicles to conduct business in the general area of the FEMP in FY2001 and FY2003 through FY2010.
- Allowance for three trips between FY2004 and FY2009 to review related construction activity at other DOE sites.

• Subcontract:

- For FY2001, covers CQC services from the OSDF A&E contractor and Rad Tech support. For FY2003 through FY2010, no further subcontract costs are planned for this account.

2.0 MANPOWER PLANS

2.1 CECP1 - OSDF Management

The actual OSDF management and support manpower levels have decreased significantly since the third quarter of FY1999 when PBS-03 was merged with PBS-06, due to sharing of resources between the two PBSs. The OSDF management and support manpower requirements included in this account are further decreased in this baseline to reflect the incorporation of centralized services to be provided and budgeted by other PBSs. Most of the necessary matrixed support personnel (i.e., project control, QA/QC, Safety and Health, procurement) are also budgeted for less than full time in this and other accounts under PBS-03 to allow more efficient utilization of manpower site wide. See attached manpower sheet 1CA01 for details.

Several actions have been taken to optimize FTE levels for PBS03. To that end, the man power plan fully reflects the impacts of centralized services which lowers the FTEs across the project. It was also anticipated that the Rad-Con requirements would be reduced and/or simplified to maximize efficiency and utilization of personnel. This would include the cross-training of project personnel to satisfy the minor rad-con requirements which would relieve the need for dedicated rad personnel. In addition, where applicable, rad personnel would cover several smaller projects that are occurring in the same vicinity, including projects at different stages of completion (i.e. access control, sampling, and excavation).

PBS06 and PBS03 construction groups will be integrated into one group. This combined group results in lowered SDFP FTE levels. In the off-season some of the construction personnel will also provide service to other projects.

In general, while maintaining safety and quality of work, other actions are anticipated that will streamline not only SDFP work processes but the site as a whole as well. These include the simplification or the elimination of time-consuming, non-technical, and low value-added requirements and practices such as PEPs, DQOs, Project Reviews, TRB, CRB, and SSRs. Cost/Schedule Impact Evaluations would be conducted on any new requirements or procedures prior to implementation. It is expected that the construction subcontractors will be required and given incentive to perform many of the functions that we currently perform for them. This would include safe work plans, travelers, penetration permits, lock and tag, QA/QC, and placement planning/coordination/tracking. However, as identified above, rad-con tasks as well as limited QA/QC, S&H and IH tasks will be performed by cross-trained and qualified Fluor Fernald project personnel.

R1-D-543

A major improvement in CAM responsibility is planned for. The CAM is expected to have full control on the number, type, and frequency of matrix charges. This is in effort to have the service organizations justify the requirements for the task(s) that they are providing. This will reduce the ad-hoc and non-required tasks being performed and charged to project accounts.

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The results of these actions are realized throughout the duration of the project. The effects are applicable and proportional to each of the control accounts within PBS03.

2.2 CECP2 - OSDF Engineering Staff

The OSDF Engineering manpower projection included in this account is generally consistent with the historical levels required to conduct all the engineering design and oversight tasks for OSDF. However, the OSDF Engineering will also support self-performing soil remedial design work for PBS-06 and all construction works for PBS-03 and PBS-06 under this baseline, which will significantly increase the in-house engineering workloads for both PBSs. See attached manpower sheet 1CA02 for details.

2.3 CECP3 – OSDF Construction Management

R1-D-E709 The OSDF Construction Management manpower projection included in this account is generally less than the historical levels budgeted to conduct all the construction oversight tasks for OSDF. Higher efficiency and less redundancy in managing the OSDF subcontractors, as well as better integration wih the PBS06 construction function, will allow these reduced manpower projections. See attached manpower sheet 1CAO2 1CAO3 for details.

R1-D-620

Table 1.5.A Procurement Quantities for Geosynthetic Materials (SF)

Type of Material			Fiscal Year	Year		
	FY04	FY05	FY06	FY07	FY08	FY09
Cell Activity	Liner 4	Liner 5 Cover 2	Liner 6 Cover 3	Liner 7 Cover 4	Cover 5	Cover 6
1. 80 mil geomembrane (textured)	770,000	770,000	770,000	770,000	0	0
2. 60 mil geomembrane (textured)	0	410,000	410,000	410,000	410,000	820,000
3. 80 mil geomembrane (smooth)	4,000	4,000	4,000	4,000	0	0
4. 60 mil geomembrane (smooth)	0 .	4,000	4,000	4,000	4,000	4,000
5. 30 mil geomembrane (smooth)	28,000	28,000	28,000	56,000	0	0
6. Geosynthetic Clay Liner	770,000	1,180,000	1,180,000	1,180,000	410,000	820,000
7. Geotextile Cushion (8 oz.)	0	430,000	430,000	430,000	430,000	860,000
8. Geotextile Cushion (10 oz.)	790,000	790,000	790,000	790,000	0	0
9. Geotextile Cushion (16 oz.)	74,500	147,500	147,500	147,500	73,000	146,000
10. Geotextile Filter (7 oz.)	460,000	460,000	460,000	400,000	0	0

NOTE: 60 and 80 mil geomembrane (smooth) is not placed as liner or cover, it is material used for trial welds.

R1-D-621

Table 1.5.B Installed Quantities for Geosynthetic Materials (SF)

	FY09	Cover 6	Cover 7	0	620,000	0	620,000	620,000	0	000'06	0
	FY08	Cover 5		0	310,000	0	310,000	310,000	0	45,000	0
Fiscal Year	FY07	Liner 7	Cover 4	650,000	310,000	46,000	000'096	310,000	650,000	95,000	330,000
Fisca	FY06	Liner 6	Cover 3	650,000	310,000	23,000	000'096	310,000	650,000	95,000	375,000
	FY05	Liner 5	Cover 2	650,000	310,000	23,000	000'096	310,000	650,000	95,000	375,000
	FY04	Liner 4		650,000	0	23,000	650,000	0	650,000	50,000	375,000
Type of Material		Cell Activity		1. 80 mil geomembrane (textured)	2. 60 mil geomembrane (textured)	3. 30 mil geomembrane (smooth)	4. Geosynthetic Clay Liner	5. Geotextile Cushion (8 oz.)	6. Geotextile Cushion (10 oz.)	7. Geotextile Cushion (16 oz.)	8. Geotextile Filter (7 oz.)

Table 1.5.C Excavation/Placement Quantities for Soil/Stone Layers in Liners and Caps

	_							0		ه ۲
	FY09							66,000 IMP		21,000 Caps 6 & 7
	FY08					11,000 Liner 7	22,000 Liner 7	33,000 . IMP	26,000 Caps 6 & 7	10,500 Cap 5
	FY07		40,000 Liner 7	11,500 Liner 7	11,500 Liner 7	11,000 Liner 6	22,000 Liner 6	33,000 IMP	13,000 Cap 5	10,500 Cap 4
Fiscal Year	FY06	55,000 Liner 7	40,000 Liner 6	11,500 Liner 6	11,500 Liner 6	11,000 Liner 5	22,000 Liner 5	33,000 IMP	13,000 Cap 4	10,500 Cap 3
	FY05	55,000 Liner 6	40,000 Liner 5	11,500 Liner 5	11,500 Liner 5	11,000 Liner 4	22,000 Liner 4	33,000 IMP	13,000 Cap 3	10,500 Cap 2
	FY04	55,000 Liner 5	40,000 Liner 4	11,500 Liner 4	11,500 Liner 4				13,000 Cap 2	
	FY03	55,000 Liner 4								
Type of Material	Cell Activity	Excavate, screen stockpile material for clay liner (liner) CY	Place clay liner (liner) ICY	Place material for secondary drainage layer (liner) TONS	Place material for primary drainage layer (liner) TONS	Place material for 12" impacted protective layer (liner) ICY	Place material for 24" select impacted material layer (liner) ICY	Place material for 36" select impacted material layer (IMP) ICY	Excavate material for contouring layer (cap) CY	Place material for contouring layer (cap) ICY
		 -	2.	က်	4.	5.	9.	7.	œ.	6

Table 1.5.C Excavation/Placement Quantities for Soil/Stone Layers in Liners and Caps

Type of Material				Fiscal Year			
Cell Activity	FY03	FY04	FY05	FY06	FY07	FY08	FY09
10. Excavate, screen stockpile		30,000	30,000	30,000	30,000	30,000	
material for clay cap (cap) or		Cap v	Cap s	cap 4	cap o	Caps o &/	
11. Place material for clay cap (cap)			22,000	22,000	22,000	22,000	44,000
<u>\</u>			Cap 2	Cap 3	Cap 4	Cap 5	Caps 6 & /
12. Place material for drainage layer			24,000	24,000	24,000	24,000	20,000
(cap) TONS			Cap 2	Cap 3	Cap 4	Cap 5	Caps 6 & 7
13. Place material for biointrusion			20,000	20,000	50,000	20,000	100,000
barrier (cap) TONS			Cap 2	Cap 3	Cap 4	Cap 5	Caps 6 & 7
14. Place material for choke stone			4,500	4,500	4,500	4,500	9,500
(cap) TONS			Cap 2	Cap 3	Cap 4	Cap 5	Caps 6 & 7
15. Place material for filter layer			10,000	10,000	10,000	10,000	20,000
(cap) TONS			Cap 2	Cap 3	Cap 4	Cap 5	Caps 6 & 7
16. Excavate material for vegetative			31,000	31,000	31,000	31,000	65,000
layer (cap) CY			Cap 2	Cap 3	Cap 4	Cap 5	Caps 6 & 7
17. Place material for vegetative			26,000	26,000	26,000	26,000	54,000
layer (cap) ICY			Cap 2	Cap 3	Cap 4	Cap 5	Caps 6 & 7
18. Excavate material for topsoil			000'6	000'6	000'6	000'6	17,000
layer (cap) CY			Cap 2	Cap 3	Cap 4	Cap 5	Caps 6 & 7
19. Place material for topsoil layer			7,000	7,000	2,000	2,000	14,000
(cap) ICY			Cap 2	Cap 3	Cap 4	Cap 5	Caps 6 & 7

SECTION 1 2.0 MANPOWER PLANS

MPS # 1CA01 OSDF MANAGEMENT & OVERSIGHT

20 GSPC FELL 1-Cap	DRIVERS	START DATE	END DATE	TOT	FY 2001 Q1 Q2 Q3	001 2 Q3 Q4	·	FY 2002 Q1 Q2 Q3	03 Q4	١٥	FY 2003 Q1 Q2 Q3	03 Q3 Q4	14	91 5	FY 2004 Q1 Q2 Q3 Q4	8	۾ ا _ت	FY 2005 Q1 Q2 Q3 Q4	03 Q	14	9	FY 2006 Q1 Q2 Q3	3 94	
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		rafter/CAD Operator		0.10			-		0	-	0	0	•	0	0			0	0	0	0	0	0	•

MPS # 1CA01 OSDF MANAGEMENT & OVERSIGHT

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DRIVERS	START DATE	END DATE	9	FY 2007 Q1 Q2 Q3 Q4	\$	FY 2008 Q1 Q2 Q3 Q4	98	•	FY 2009	<u>ا در</u>	04	Q1 C	FY 2010	8	9	7 20 02	11 Q3 Q4		
301 OSDF Summary Schedule	04/01/2004	12/23/2009	x xxx	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX	XX XX	XXX	×	X	XXX	XXX	XXX							
302 OSDF CELL 1 - Cap	11/09/2000	09/28/2001																	
303 OSDF CELL 2 - Cap	03/01/2005	12/30/2005																	
305 OSDF CELL 3 - Cap	03/01/2006	12/29/2006	XXX																
306 OSDF CELL 4 - Site Prep and Liner	08/15/2003	12/30/2004																	
308 OSDF CELL 4 - Cap	03/01/2007	12/20/2007		xxx xxx x	×	×													
309 OSDF CELL 5 - Site Prep and Liner	08/18/2004	12/30/2005																	
311 OSDF CELL 5 - Cap	03/03/2008	12/22/2008				×	xxx xxx x	X	×										
312 OSDF CELL 6 - Site Prep and Liner	08/18/2005	12/29/2006	XXX																
314 OSDF CELL 6 - Cap	03/02/2009	11/16/2009								xx xxx xxx x	X	×							
315 OSDF Monitoring & Maintenance	10/02/2000	12/23/2009	X XX	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	×××	XX XX	XXX	×	×	XXX	X	XXX							
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318 Interim Cap for Cells 2&3	11/01/2001	11/21/2001																	
319 OSDF CELL 7 - Liner	08/16/2006	12/31/2007	×××	XXX XXX XXX XXX	×××	×													
320 OSDF CELL 7 - Cap	03/02/2009	12/23/2009								XXX XXX X	X	×××							
321 OSDF Cell Placement	10/01/2003	06/30/2009	XXX	*** *** *** *** *** *** *** *** *** ***	×××	XX XX	×××	×	×	×××									
Project Management	Program Mgr.		0.5	0.5 0.5	0.5	0.5 0.5	0.5	0.5	0.5	0.5 0.5	0.5	9.0	0	0	•	0	0	•	
Project Controls	Project Controls Mgr.		0.5	0.5 0.5	0.5	0.5 0.3	0.3	0.3	0.3	0.2 0.2	0.5	0.1	0	0	•	•	•	0	
Environmental Safety & Health	Safety & Health Mgr.		0.5	0.5 0.5	0.5	0.5 0.5	9.0	0.5	0.5	0.5 0.5	9.0	0.5	0	0	•	0	0	0	
Environmental Safety & Health F	Rad Engineer		0.5	0.5 0.5	0.5	0.5 0.5	9.0	0.5	0.2	0.2 0.2	0.5	0	0	0	•	0	0	0	
QA/QC	QA/QC Tech.		0.2	0.2 0.2	0.2	0.2 0.1	0.1	1.0	1.0	0.1 0.1	0.1	0	0	0	•	0	0	0	
Procurement	Procur. & Contracting Mgr.	gr.	0.5	0.5 0.5	0.5	0.5 0.5	0.5	0.5	0.2	0.2 0.2	0.5	0.1	0	0	•	0	0		
Environmental	Environmental Protection Rep	n Rep.	0.5	0.5	-	0.5 0.5	-	-	0.1	0.1 0.1	0.1	0	0	0	•	0	0	0	
Administration	Clerks		1.2	1.2 1.2	1.2	1.2 1.2	1.2	1.2	1.2	1.2 1.2	1.2	-	0	0	•	•	0	0	
Project Controls	Cost Analyst		-	-	-	-	0.5	0.5	0.5	0.5 0.5	9.0	0.1	0	0	•	0	0	0	
Project Controls	Scheduler		0.5	0.5 0.5	0.5	0.5 0.5	0.3	0.3	0.3	0.2 0.1	0.1	0	0	0	•	0	0	0	
Subcontract	Subcontract Staff		7	4 7	_	4	7	7	7	4	5	က	0	0	•	0	0	0	
Subcontract	Subcontract Craft		20	10 50	20	50 10	45	45	45	5 30	30	30	0	0	•	0	0	0	
Procurement	Buyer/Contracts Administrator	strator	•	0	•	0	0	•	0	0	0	0	0	0	•	0	0	0	
Human Resources & Public Affairs Human Resource Rep.	Human Resource Rep.		0	0	-	0	0	•	0		0	0	0	0	•	0	•	0	
Project Management	Tech/Program Support Mgr.	Mgr.	0	0	•	0	0	•	0		0	0	0	0	•	•	•	0	
Project Management	Project Mgr.			0	•	0	0	0	0		0	0	0	0	<u> </u>	0	0	0	
Engineering & Design	Drafter/CAD Operator		0	0	•	0	•	0	0		0	0	0	0	•	0	•	0	

MPS # 1CA01 OSDF MANAGEMENT & OVERSIGHT

			ᇤ	FY 2001		-	·Y 200	7		FY 2003	003		Ŧ	2004		_	FY 2005	92		Ŧ	FY 2006	
DRIVERS	START DATE END DATE	T0T	ğ	Q1 Q2 Q3 Q4	9	٩	05	Q1 Q2 Q3 Q4		ים וג	Q1 Q2 Q3 Q4	4	9	Q1 Q2 Q3 Q4	20	ļά	Q1 Q2 Q3 Q4	8	≄	5	21 Q2 Q3 Q4	9
Engineering & Design	Engineer Manager	2.80	0	0	0.8	•	0	•	-		0	0	۰	0	۰	ļ	ů	۰	•	٥	۰	۰
Environmental	Environmental Scientist Rep.	0.20	0	0.2	0	•	0	0	-	0	0 0	0	0	0	0	-	0	0		0	0	0
Project Controls	Estimator	2.00	0.2	0.3	1 0.5	•	0	o	-	0	0	0	0	0	0	-	0	0	-	0	0	
QA/QC	QA Engineer	2.20	8.0	.0	0.3 0	•	0	0	-	0	0	0	0	0	0		0 (0		0	0	0
Waste Management	Waste Engineer	09.0	0.5	0.1		•	0	0	-	0	0	0	0	0	0		0	0		0	0	

1186.60 10.50 10.50 36.20 46.90 28.70 0.00 0.00 0.00 1.80 8.80 17.20 17.20 18.40 12.40 36.20 36.50 12.50 41.50 41.50 42.50 14.50 63.40 63.40

Sheet Totals:

MPS # 1CA01 OSDF MANAGEMENT & OVERSIGHT

		FY 2007	200	١	Ŧ	FY 2008			FY 2009	60		FY 2010	010			FY 2011	7	
DRIVERS	START DATE END DATE	Q1 Q2 Q3 Q4	Q3 C	4	9	11 Q2 Q3 Q4	9		1 02	Q1 Q2 Q3 Q4	4	Q1 Q2 Q3 Q4	2 Q3	8	Ιά	Q1 Q2 Q3 Q4	ខ	1 %
Engineering & Design	Engineer Manager	0	0 0	0	0	0	0	-	0	0	0	0	0		0	٥	٥	۰
Environmental	Environmental Scientist Rep.	0	0	•	0	0	•	-	•	0	0	0	0			0	0	0
Project Controls	Estimator	0	•	0	•	0	0		•	0	-	0	0		·	0	0	0
QA/QC	QA Engineer	0	•	0	0	0	0	-	0	•		0				0	•	0
Waste Management	Waste Engineer	0	•	0	0	0	0			0		0	0			0	0	0

MPS # 1CA02 OSDF ENGINEERING STAFF

					FY 2001		4	FY 2002		١	FY 2003	903	ĺ	-	FY 2004	4	1	Ŧ	FY 2005			FY 2006	90	
DRIVERS	START DATE	END DATE	T0T	9	Q1 Q2 Q3	3 Q4	٩	Q1 Q2 Q3	3 04		Ž.	Q1 Q2 Q3 Q4	8	٥	Q1 Q2 Q3	Q3 Q4	4	9	Q1 Q2 Q3	3 04		Q1 Q2 Q3		8
301 OSDF Summary Schedule	04/01/2004	12/23/2009														XXX	*** *** *** *** *** *** ***	XX XX	Q X	×	×	XXX	XX	XXX
302 OSDF CELL 1 - Cap	11/09/2000	09/28/2001		XXXX	×	XX XXX XXX XX																		
303 OSDF CELL 2 - Cap	03/01/2005	12/30/2005																	×	S	XXX XXX XXX	J		
305 OSDF CELL 3 - Cap	03/01/2006	12/29/2006																					XXX XXX	X
306 OSDF CELL 4 - Site Prep and Liner	08/15/2003	12/30/2004											×	×	×	×	XXX XXX XXX XXX XXX	×						
308 OSDF CELL 4 - Cap	03/01/2007	12/20/2007																						
309 OSDF CELL 5 - Site Prep and Liner	08/18/2004	12/30/2005															×	×	♀ ≎	Š	XXX XXX XXX XXX XXX	J		
311 OSDF CELL 5 - Cap	03/03/2008	12/22/2008																						
312 OSDF CELL 6 - Site Prep and Liner	08/18/2005	12/29/2006																		. ~	×	XXX XXX XXX XXX	XX	×
314 OSDF CELL 6 - Cap	03/02/2009	11/16/2009																						
315 OSDF Monitoring & Maintenance	10/02/2000	12/23/2009	×	XXX	XX	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XX	XXX	×	×	XX	XXX	X	××	XX	Š	×	×	- ≳ - >	Š	×	XXX	XX	×
317 WASTE ACCEPTANCE ORGANIZATION	10/01/2003	09/30/2009												XX	X	×	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	×	- S	×	×	XXX	XX	š
318 Interim Cap for Cells 2&3	11/01/2001	11/21/2001					×																	
319 OSDF CELL 7 - Liner	08/16/2006	12/31/2007																						×
320 OSDF CELL 7 - Cap	03/02/2009	12/23/2009																						
321 OSDF Cell Placement	10/01/2003	06/30/2009												××	XX	×	*** *** *** *** *** *** *** *** ***	×	Š	×	×	XXX	XXX	XX
Project Management Proje	Project Mgr.		33.20	-	-	-	-	0.2	0	-	0.5 0	0.5 1	-	_	-	-	-	-	-	-	_	-	-	-
Engineering & Design Engir	Engineer Civil		72.30	က	ဂ	3	2.1	0.2	0	-	0.5	0.5	-	-	-	2	-2	7	2	2	2	3	က	က
Engineering & Design Draft	Drafter/CAD Operator		14.10	0	•	0	•	0	0	-	0	0 0.2	0.2	0.2	0.2	0.2	0.2	-	9.0	0.5	0.5 0.5	5 0.5	0.5	-
Administration Clerks	ks		3.80	0.1	0.1	0.3 0.3	0.2	0	0	-	0	0	0	•	0	0	-	0.1	1.0	0.1	0.1 0.2	2 0.2	0.2	0.2
	Shee	Sheet Totals: 12	123.40	1.10 4.1	10 4.3	4.10 4.10 4.30 4.30		0.40 0	00.	9.1	0.1 0	3,30 0,40 0.00 0.00 1.00 1.00 2.20 2.20	2.20		2.20 2.20	3.20	3.20	4.10 3.60		3.60 3.60		4.70 4.70 4.70	4.70	5.20

MPS # 1CA02 OSDF ENGINEERING STAFF

			FY 2007	FY 2008	FY 2009	FY 2010		FY 2011	_
DRIVERS	START DATE	END DATE	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	σ	Q1 Q2 Q3 Q4	13 Q4
301 OSDF Summary Schedule	04/01/2004	12/23/2009	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX XXX XXX XXX	xxx xxx xxx	XXX			
302 OSDF CELL 1 - Cap	11/09/2000	09/28/2001	-						
303 OSDF CELL 2 - Cap	03/01/2005	12/30/2005				•			
305 OSDF CELL 3 - Cap	03/01/2006	12/29/2006	xxx						
306 OSDF CELL 4 - Site Prep and Liner	08/15/2003	12/30/2004							
308 OSDF CELL 4 - Cap	03/01/2007	12/20/2007	XXX XXX X	XX					
309 OSDF CELL 5 - Site Prep and Liner	08/18/2004	12/30/2005							
311 OSDF CELL 5 - Cap	03/03/2008	12/22/2008		xxx xxx x	xxx				
312 OSDF CELL 6 - Site Prep and Liner	08/18/2005	12/29/2006	xxx						
314 OSDF CELL 6 - Cap	03/02/2009	11/16/2009			xx xxx xxx	××			
315 OSDF Monitoring & Maintenance	10/02/2000	12/23/2009	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX XXX XXX	XXX XXX XXX	xxx			
317 WASTE ACCEPTANCE ORGANIZATION	10/01/2003	09/30/2009	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX XXX XXX XXX	XXX XXX XXX				
318 Interim Cap for Cells 2&3	11/01/2001	11/21/2001							
319 OSDF CELL 7 - Liner	08/16/2006	12/31/2007	XXX XXX XXX XXX	XX					
320 OSDF CELL 7 - Cap	03/02/2009	12/23/2009			XXX XXX X	XXX			
321 OSDF Cell Placement	10/01/2003	06/30/2009	*** *** *** *** *** *** *** *** ***	xxx xxx xxx	XXX XXX XXX				
Project Management Project	Project Mgr.		-	-	-	0	0	0	0
Engineering & Design	Engineer Civil		3 3 3	3 3	-	0 0	·	0	0
Engineering & Design Drafter	Drafter/CAD Operator		1 0.5 1 1	1 0.5 1 1	0.2 0.2 0.2 0.2	0.1 0 0	· -	0	0
Administration			0.2 0.2 0.2 0.2	0.2 0.2 0.2 0.2	0 0 0	0 0	0	0	0
									١

MPS # 1CA03 OSDF CONSTRUCTION MANAGEMENT

DRIVERS	START DATE	END DATE	TOT	9 5	FY 2001 Q1 Q2 Q3 Q4	19	FY 2002 Q1 Q2 Q3	32 Q3 Q4		FY 2003 Q1 Q2 Q3	13 Q3 Q4		FY 2004	FY 2004 Q1 Q2 Q3 Q4		FY 2005 Q1 Q2 Q3	2 03	8	-18	FY 2006 Q1 Q2 Q3	3 04	l
301 OSDF Summary Schedule	04/01/2004	12/23/2009				_			 _						~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	*	*	*	3	3	>	 ;
	11/09/2000	09/28/2001		XX	XXX XXX XXX XX	×									<u> </u>	.		*		ς ζ	< {	ş
303 OSDF CELL 2 - Cap	03/01/2005	12/30/2005															XXX XXX X	XXX	××			
305 OSDF CELL 3 - Cap	03/01/2006	12/29/2006																		×	XXX XXX X	ĕ
306 OSDF CELL 4 - Site Prep and Liner	08/15/2003	12/30/2004										<u> </u>	XX XX	XX XXX XXX XXX XXX	XX	×						
308 OSDF CELL 4 - Cap	03/01/2007	12/20/2007																				
309 OSDF CELL 5 - Site Prep and Liner	08/18/2004	12/30/2005													×	×	XX XXX XXX XXX XXX	XXX	XX			
311 OSDF CELL 5 - Cap	03/03/2008	12/22/2008																				
312 OSDF CELL 6 - Site Prep and Liner	08/18/2005	12/29/2006																×	xxx xxx xxx xxx	XXX	×	×
314 OSDF CELL 6 - Cap	03/02/2009	11/16/2009																				
315 OSDF Monitoring & Maintenance	10/02/2000	12/23/2009		XXX	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XX	XXX	XX XX	××	XXX	XXX	<u> </u>	XX	XXX	XX	XX	XXX	XX	×	XXX	×	ŏ
317 WASTE ACCEPTANCE ORGANIZATION	10/01/2003	09/30/2009										2	X	*** *** *** *** *** *** *** *** ***	<u> </u>	×	XXX	XXX	×	×	×	ŏ
318 Interim Cap for Cells 2&3	11/01/2001	11/21/2001				×	U					-										
319 OSDF CELL 7 - Liner	08/16/2006	12/31/2007																				×
320 OSDF CELL 7 - Cap	03/02/2009	12/23/2009																				
321 OSDF Cell Placement	10/01/2003	06/30/2009										<u> </u>	XX	xxx xxx xxx xxx xxx xxx xxx xxx xxx xx	- X	XX	XXX	XXX	X	XXX	×	8
Construction Constr	Construction Mgr.		49.20	2.3	1.7 2.1	2.1	2 0	0	-	-	-	-	-	-	-	-	-	_	~	-	8	Ģ
	:		9	•			,	•		•	•		·	,		·	,			,	,	,
Construction Constr	Construction Engineer		104.60	₹	3.6	_	4	0	5	-	-	-	7	7	N	N	7	N	*	m	4	•
Construction Constr	Construction Coordinator		39.10	3.4	3	<u>.</u>	0.5 0	0	0	0.1	-		-	-	-	-	1.5	5 1.5	 5.	-	1.5	1.5
Administration Clerks	0		8.80	1.2	11 11	-	1 0	0	-	0 0	0.1	0.1	0.1 0.1	1 0.1	0.1	0.1	0.1 0.1	1.0	0.2	0.2	0.2	0.2
Procurement Buyer/	Buyer/Contracts Administrator	ator	0.10	0.1	0	-	0 0	0	-	0	0	-	0	0	-	0	0	0	•	0	0	0
Human Resources & Publ Human Resource Rep.	in Resource Rep.		0.50	0.2	0.3 0	-	0 0	0		0	0	-	0	0	-	0	0	0	•	0	0	0
Environmental Safety & H Rad Tech	ech		9.80	-	2.6 3.1	3.1	0 0	0	-	0	0	-	0	0	-	0	0	0	•	0	0	0
General Labor Hazwat	at		0.60	0.3	0.3 0	-	0	0	-	0	0	-	0	0	-	0	0	0	•	0	0	•
Engineering & Design Engineer	eer		0.90	0.7	0.2 0	-	0 0	0	-	0	0	-	0	0	0	0	0	0	•	0	0	0
Environmental Enviro	Environmental Scientist Rep.	.də	0.20	0.2	0	-	0	0	-	0	0	-	0	0	0	0	0	0	•	0	0	0
Project Management Projec	Project Mgr.		4.90	9.0	0.5 1.9	6:	0 0	0	-	0	0	0	0	0	0	0	0	0	•	0	0	0
Project Controls Scheduler	duler		2.20	1.2	0	0	0	0	-	0	0	0	0	0 0	•	0	0	0	•	0	0	0
General Labor Gener	General Laborer		5.80	1.7	2.1 1	-	0	0	-	0	0	•	0	0	-	0	0	0	•	0	0	0
QA/QC QA En	QA Engineer		11.00	3.4	2.8 2.4	2.4	0	0	-	0	0	-	0	0 0	0	0	0	0	-	0	0	0
Environmental Safety & H Rad Engineer	Engineer		2.60	1.2	0.2 0.6	9:0	0	0	-	0	•	0	0	0	0	0	0	0	•	0	0	0
Environmental Safety & H Safety	Safety & Health Mgr.		8.00	8	1.8 2.1	2.1	0	0	-	0	0	-	0	0	-	0	0	0	•	0	0	0
Environmental Safety & H Safety Tech.	v Tech.		0.60	4.0	0.2 0	-	0	0	-	0	0	-	0	0	•	•	0	0	•	0	0	0
						_			_			_			_							

MPS # 1CA03 OSDF CONSTRUCTION MANAGEMENT

DRIVERS	START DATE	END DATE	Q1 Q2 Q3 Q4	G1 Q2 Q3 Q4	G1 Q2 Q3 Q4	FY 2010 Q1 Q2 Q3 Q4		FY 2011 Q1 Q2 Q	11 Q3 Q4	
301 OSDF Summary Schedule	04/01/2004	12/23/2009	XXX XXX XXX XXX	XXX XXX XXX	*** *** *** *** *** *** *** *** *** **	×××				
302 OSDF CELL 1 - Cap	11/09/2000	09/28/2001					<u> </u>			
303 OSDF CELL 2 - Cap	03/01/2005	12/30/2005								
305 OSDF CELL 3 - Cap	03/01/2006	12/29/2006	XXX							
306 OSDF CELL 4 - Site Prep and Liner	r 08/15/2003	12/30/2004								
308 OSDF CELL 4 - Cap	03/01/2007	12/20/2007	XXX XXX X	xxx						
309 OSDF CELL 5 - Site Prep and Liner	r 08/18/2004	12/30/2005								
311 OSDF CELL 5 - Cap	03/03/2008	12/22/2008		XXX XXX X	xxx					
312 OSDF CELL 6 - Site Prep and Liner	r 08/18/2005	12/29/2006	XXX							
314 OSDF CELL 6 - Cap	03/02/2009	11/16/2009			XXX XXX	××				
315 OSDF Monitoring & Maintenance	10/02/2000	12/23/2009	XXX XXX XXX	XXX XXX XXX	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	xxx				
317 WASTE ACCEPTANCE ORGANIZATION	ATION 10/01/2003	09/30/2009	XXX XXX XXX	XXX XXX XXX XXX	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX					
318 Interim Cap for Cells 2&3	11/01/2001	11/21/2001								
319 OSDF CELL 7 - Liner	08/16/2006	12/31/2007	XXX XXX XXX XXX	xxx						
320 OSDF CELL 7 - Cap	03/02/2009	12/23/2009			XXX XXX X	xxx				
321 OSDF Cell Placement	10/01/2003	06/30/2009	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX XXX XXX	xxx xxx xxx					
Construction	Construction Mgr.		2 1 2 2	2 1 2	2 2 1 1 1	0 0	•	0	0	•
Construction	Construction Engineer		4 6 4	6 4	4 3 3	0 0	-	0	0	0
Construction	Construction Coordinator	5	1.5 1 1.5 1.5	1.5 1 1.5 1.5	-	0.5 0 0	-	•	•	
Administration	Clerks		0.2 0.2 0.2 0.2	0.2 0.2 0.2 0.2	0 0 0	0	0	•	0	0
Procurement	Buyer/Contracts Administrator	strator	0 0 0	0 0 0	0 0 0 0	0 0	-	0	0	0
Human Resources & Public Affairs	Human Resource Rep.		0 0 0	0 0 0	0 0 0 0 0	0 0 0	-	0	0	0
Environmental Safety & Health	Rad Tech		0 0 0	0 0	0 0 0 0	0 0	0	0	0	0
General Labor	Hazwat		0 0 0	0 0 0	0 0 0 0	0 0	-	0	0	0
Engineering & Design	Engineer		0 0 0	0 0	0 0 0	0 0	-	0	0	0
Environmental	Environmental Scientist Rep.	Rep.	0 0 0	0 0 0	0 0 0 0	0 0 0	-	0	0	
Project Management	Project Mgr.		0 0 0	0 0	0 0 0 0	0 0	-	0	0	
Project Controls	Scheduler		0 0 0	0 0	0 0 0 0	0 0 0	-	0	0	0
General Labor	General Laborer		0 0 0	0	0 0 0 0	0 0 0	-	0	0	0
QA/QC	QA Engineer		0 0	0 0	0 0 0	0 0	-	0	0	•
Environmental Safety & Health	Rad Engineer		0 0 0	0 0	0 0 0 0	0 0	•	0	0	0
Environmental Safety & Health	Safety & Health Mgr.		0 0 0	0	0 0 0	0 0	-	0	0	0
Environmental Safety & Health	Safety Tech.		0 0	0 0	0 0 0 0 0	0 0 0	-	0	0	0

MPS # 1CA03 OSDF CONSTRUCTION MANAGEMENT

FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2006	1 02 03 04 01 02 03 04 01 02 03 04 01 02 03 04 01 02 03 04 01 02 03 04	
7	DATE TOT Q	1.70 0.8
	START DATE END	Waste Engineer
	DRIVERS	Waste Management

250.60 24.70 22.30 21.30 21.20 7.50 0.00 0.00 0.00 2.10 2.10 3.10 3.10 4.10 4.10 4.10 4.10 4.10 4.10 4.50 7.70 5.20 7.70 7.70

Sheet Totals:

MPS # 1CA03 OSDF CONSTRUCTION MANAGEMENT

902/100		! !	FY 2007	FY 2008		E	FY 2009	1.	FY 2010	10	1	FY 2011	_
DAIVENS	SIAKI DAIE	END DATE	UT UZ U3 U4	U1 U2 U3 U4	2	5	11 Q2 Q3 Q4		21 02	1 Q2 Q3 Q4	O	1 02	21 Q2 Q3 Q4
Waste Management	Waste Engineer		0 0 0	0 0	0	0	0 0	-	0	0	-	0	0
		Sheet Totals:	7.70 5.20 7.70 7.70 5.20 7.70 7.70 5.00 5.00 5.00 5.00 0.00 0.0	7.70 5.20 7.	07.7 07	7.00	00.5.00	5.00 2	.50 0.00	0.00 0.0	00.0	0.00	0.00 00.0

SECTION 1

3.0 ESTIMATE

*

CECP1 OSDF MANAGEMENT & OVERSIGHT

			·

ı		1							
09/05/01									
DATE	PROJECT MGR CAM: PREPARED BY FISCAL YEAR:		Oct 09- Sep 10 0.0 1,180.7 0		Oct 09- Sep 10 421.0 15,664.1 17,590 506,837		Oct 09- Sep 10 42.1 9,733.6 2,864 494,758		Oct 09- Sep 10 0.0 44.3 0 1,382
			Oct 08- O Sep 09 S 0.0 1,180.7 1,		Oct 08- Oct 55p 09 Si 2,096.4 15,243.1 15,443.1 17,489,247 500		Oct 08- Oc Sep 09 Sr 873.5 9,691.5 9,7 57,649 ,2		Oct 08- Oc Sep 09 Se 0.0 44.3 44.3 0 1,382
			Oct 07- Sep 08 0.0 1,180.7 1		Oct 07- C Sep 08 S 2,096.4 2 13,146.7 15,76,463 8		Oct 07- O Sep 08 S 1,302.5 8,818.0 9,77,355 5 5		Oct 07- O Sep 08 S 0.0 44.3 0 0 1,382
			Oct 06- Sep 07 0.0 1,180.7 0		Oct 06- Sep 07 2,096.4 11,050.3 1:72,545		Oct 06- Sep 07 1,747.0 7,515.5 98,437		Oct 06- Sep 07 0.0 44.3 0 1,382
Inc.	NG		Oct 05- Sep 06 0.0 1,180.7 0 49,471		Oct 05- Sep 06 2,096.4 8,953.9 66,918		Oct 05- Sep 06 1,747.0 5,768.5 90,802 258,453		Oct 05- Sep 06 0.0 44.3 0 1,382
	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	ŭ	Oct 04- Sep 05 0.0 1,180.7 0 49,471	œ	Oct 04- Sep 05 2,096.4 62,635 62,635	œ	Oct 04- Sep 05 \$24.1 4,021.5 25,497	œ	Oct 04- Sep 05 0.0 44.3 0
Fluor Fernald,	ESTIMATE SUP FOR ACTIVITY E (1 FTE EQUA	LABOR	Oct 03- Sep 04 0.0 1,180.7 0	LABOR	Oct 03- Sep 04 2,096.4 4,761.1 59,129 125,715	LABOR	Oct 03- Sep 04 524.1 3,497.4 24,070 142,154	LABOR	Oct 03- Sep 04 0.0 44.3 0
正		EOC:	Oct 02- Sep 03 0.0 1,180.7 0	EOC:	Oct 02- Sep 03 873.5 2,664.7 23,265 66,586	EOC:	Oct 02- Sep 03 349.4 2,973.3 15,153	EOC:	Oct 02- Sep 03 0.0 44.3 0
		ADMN Class:	Oct 01- Sep 02 0.0 1,180.7 0 49,471	Class:	Oct 01- Sep 02 421.0 1,791.2 10,587	Class:	Oct 01- Sep 02 421.0 2,623.9 17,238	ATOR Class:	Oct 01- Sep 02 0.0 44.3 0 1,382
		BUYER/CONTRACTS ADMN Overtime: F01	Oct 00- Sep 01 1,180.7 1,180.7 49,471	CLERKS Overtime: F01	Oct 00- Sep 01 1,370.2 1,370.2 32,734	COST ANALYST Overtime: F01	Oct 00- Sep 01 2,202.9 2,202.9 85,693 85,693	DRAFTER/CAD OPERATOR Overlime: F01	Oct 00- Sep 01 44.3 44.3 1,382 1,382
OHFN03	1.1.C.A CECP CECP1 F03-030	BUYCON 949		CLERKS 949		CSTANL 949		DRFCAD 949	
PBS:	WBS: CTRL ACCT: CHARGE NO: COMMENT #:	Resource: Res Dept:	Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Resource: Res Dept:	Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Resource: Res Dept:	Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Resource: Res Dept:	Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:

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- FBS:	OH-N03					, הוכל הוכל	;				DATE:	09/05/01
WBS: CTRI ACCT:	1.1.C.A				ESTIMATE SUPPORT WORKSHEET	PORT WORKSH	EET				PROJECT N	PROJECT MGR: JD Chiou
CHARGE NO:					(1 FTE EQUA	(1 FTE EQUALS 1747 HOURS)	(S)				CAM: PREPARED BY FISCAL YEAR:	CAM: JD CHIOU PREPARED BY: W. F. FICK FISCAL YEAR: 2001-2010
Resource: Res Dept:	ENGMGR 949	ENGINEERING MGR Overtime: F01	Class:	EOC: SAL	LABOR	Œ						
Yr Hours:		Oct 00- Sep 01 1,235.6	•	Oct 02- Sep 03 0.0	Oct 03- Sep 04 0.0	Oct 04- Sep 05 0.0	Oct 05- Sep 06 0.0	Oct 06- Sep 07 0.0	Oct 07- Sep 08 0.0	Oct 08- Sep 09 0.0	Oct 09- Sep 10 0.0	
Cum Hours: Yr Total Cost: Cum Total Cost:	÷	1,235.6 73,889 73,889	1,235.6 0 73,889	1,235.6 0 73,889	1,235.6 0 73,889	1,235.6 0 73,889	1,235.6 0 73,889	1,235.6 0 73,889	1,235.6 0 73,889	1,235.6 0 73,889	1,235.6 0 73,889	
Resource: Res Dept:	ENPREP 949	ENVIR PROTECTION REP Overtime: F01	REP Class:	EOC: SAL	LABOR	œ			٠			
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:		Oct 00- Sep 01 145.2 145.2 7,019 7,019	Oct 01- Sep 02 210.5 355.7 10,711	Oct 02- Sep 03 0.0 355.7 0 17,730	Oct 03- Sep 04 88.3 444.0 5,039 22,769	Oct 04- Sep 05 349.4 793.4 21,123 43,892	Oct 05- Sep 06 1,332.5 2,125.9 86,065 129,957	Oct 06- Sep 07 1,332.5 3,458.4 93,301 223,258	Oct 07- Sep 08 1,318.0 4,776.4 97,271 320,529	Oct 08- Sep 09 174.7 4,951.1 14,328 334,857	Oct 09- Sep 10 0.0 4,951.1 334,857	
Resource: Res Dept:	ENSREP 949	ENVIR SCIENCE REP Overtime: F01	Class:	EOC: SAL	LABOR	œ						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	ע	Oct 00- Sep 01 88.6 88.6 3,718 3,718	Oct 01- Sep 02 0.0 88.6 0 3,718	Oct 02- Sep 03 0.0 88.6 0 3,718	Oct 03- Sep 04 0.0 88.6 0 3,718	Oct 04- Sep 05 0.0 88.6 0 3,718	Oct 05- Sep 06 0.0 88.6 0 3,718	Oct 06- Sep 07 0.0 88.6 0 3,718	Oct 07- Sep 08 0.0 88.6 0 3,718	Oct 08- Sep 09 0.0 88.6 0 3,718	Oct 09- Sep 10 0.0 88.6 0 3,718	
Resource: Res Dept:	HRREP 949	HUMAN RESOURCE REP Overtime: F01	EP Class:	EOC:	LABOR	œ						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:		Oct 00- Sep 01 643.7 643.7 23,128 23,128	Oct 01. Sep 02 0.0 643.7 0 23,128	Oct 02- Sep 03 0.0 643.7 0 23,128	Oct 03- Sep 04 0.0 643.7 0	Oct 04- Sep 05 0.0 643.7 0	Oct 05- Sep 06 0.0 643.7 0 23,128	Oct 06- Sep 07 0.0 643.7 0 23,128	Oct 07- Sep 08 0.0 643.7 0 23,128	Oct 08- Sep 09 0.0 643.7 0 23,128	Oct 09- Sep 10 0.0 643.7 0 23,128	

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PBS: OHFN03			Ī	Jor re	rivor rernaia, inc.	, IIC.				DATE:	: 09/02/01
				ESTIMATE SUF FOR ACTIVITY	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING	leet Ting				PROJ CAM:	PROJECT MGR: JD Chiou CAM: JD Chiou
CHARGE NO: CECP1 COMMENT #: F03-030				(1 FTE EQU/	(1 FTE EQUALS 1747 HOURS)	S)				PREI FISC	PREPARED BY: W. F. FICK FISCAL YEAR: 2001-2010
Resource: MAT300 Res Dept: 949	MATERIAL OBJCLASS300 Overtime: F01	S300 Class:	EOC: MAT	MATE	MATERIAL						
Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:	Oct 00- Sep 01 14,626.0 14,626.0 14,626	Oct 01- Sep 02 3,041.0 17,667.0 3,123	Oct 02- Sep 03 13,292.0 30,959.0 14,019 31,769	Oct 03- Sep 04 13,292.0 44,251.0 14,412 46,181	Oct 04- Sep 05 13,292.0 57,543.0 14,816 60,996	Oct 05- Sep 06 13,292.0 70,835.0 15,245	Oct 06- Sep 07 13,292.0 84,127.0 15,687 91,929	Oct 07- Sep 08 13,292.0 97,419.0 16,142	Oct 08- Sep 09 13,292.0 110,711.0 16,610	Oct 09- Sep 10 13,292.0 124,003.0 17,092	
Resource: ODC600 Res Dept: 949	ODC 600 Overtime: F01	Class:	EOC: ODC	opc							
Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:	Oct 00- Sep 01 4,052.0 4,052.0 4,052	Oct 01- Sep 02 45.0 4,097.0 4,098	Oct 02- Sep 03 180.0 4,277.0 190 4,288	Oct 03- Sep 04 3,028.0 7,305.0 3,283 7,571	Oct 04- Sep 05 3,028.0 10,333.0 3,375 10,946	Oct 05- Sep 06 3,028.0 13,361.0 3,473	Oct 06- Sep 07 3,028.0 16,389.0 3,574 17,993	Oct 07- Sep 08 3,028.0 19,417.0 3,677 21,670	Oct 08- Sep 09 3,028.0 22,445.0 3,784 25,454	Oct 09- Sep 10 3,028.0 25,473.0 3,894 29,348	
Resource: ODC700 Res Dept: 949	ODC 700 Overtime: F01	Class:	EOC:	000							
Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:	Oct 00- Sep 01 4,051.0 4,051.0 4,051.0	Oct 01- Sep 02 0.0 4,051.0 0	Oct 02- Sep 03 0.0 4,051.0 0 4,051	Oct 03- Sep 04 60,000.0 64,051.0 65,056 69,107	Oct 04- Sep 05 62,058.0 126,109.0 69,171 138,278	Oct 05- Sep 06 2,058.0 128,167.0 2,360 140,638	Oct 06- Sep 07 2,058.0 130,225.1 2,429 143,067	Oct 07- Sep 08 2,058.0 132,283.0 2,499 145,566	Oct 08- Sep 09 2,058.0 134,341.1 2,572 148,138	Oct 09- Sep 10 0.0 134,341.1	
Resource: PJCEST Res Dept: 949	ESTIMATOR Overtime: F01	Class:	EOC: SAL	LABOR	K.						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Oct 00- Sep 01 820.6 820.6 45,552	Oct 01- Sep 02 0.0 820.6 0 45,552	Oct 02- Sep 03 0.0 820.6 0 45,552	Oct 03- Sep 04 0.0 820.6 0 45,552	Oct 04- Sep 05 0.0 820.6 0 45,552	Oct 05- Sep 06 0.0 820.6 0 45,552	Oct 06- Sep 07 0.0 820.6 0 45,552	Oct 07- Sep 08 0.0 820.6 0	Oct 08- Sep 09 0.0 820.6 0 45,552	Oct 09- Sep 10 0.0 820.6 0 45,552	

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WBS: CTRL ACCT:	1.1.C.A CECP				ESTIMATE SUP FOR ACTIVITY I	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING	IEET TING				a 0	PROJECT MGR: JD Chiou CAM: JD Chiou
CHARGE NO: COMMENT #:	CECP1 F03-030				(1 FTE EQUA	(1 FTE EQUALS 1747 HOURS)	(S				Сп	ARED BY: L YEAR:
Resource: Res Dept:	PJCMGR 949	PROJECT CONTROLS MGR Overtime: F01	MGR Class:	EOC: SAL	LABOR	Œ					·	
Since T		Oct 00- Sep 01	Oct 01:- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10	
Cum Hours: Yr Total Cost: Cum Total Cost:	بد	726.0 726.0 47,502 47,502	421.0 1,147.0 28,994 76,497	1,321.7 1,321.7 12,744 89,240	457.7 1,759.4 33,812 123,052	973.5 2,632.9 71,476 194,529	2,506.4 3,506.4 76,365 270,893	67.5.5 4,379.9 82,786 353,679	60,785 4,988.4 60,785 414,464	391.3 5,379.9 43,460 457,924	42.1 5,422.0 4,818 462,742	
Resource: Res Dept:	РJСSСН 949	SCHEDULERS Overtime: F01	Class:	EOC: SAL	LABOR	ŭ						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	4	Oct 00- Sep 01 726.0 726.0 38,391	Oct 01- Sep 02 84.2 810.2 4,687	Oct 02- Sep 03 174.7 984.9 10,300 53,377	Oct 03- Sep 04 349.4 1,334.3 21,814 75,191	Oct 04- Sep 05 349.4 1,683.7 23,107 98,297	Oct 05- Sep 06 873.5 2,557.2 61,717	Oct 06- Sep 07 873.5 3,430.7 66,907 226,921	Oct 07- Sep 08 695.7 4,126.4 56,166 283,087	Oct 08- Sep 09 303.2 4,429.6 27,202 310,289	Oct 09- Sep 10 0.0 4,429.6 0	
Resource: Res Dept:	PRJMGR 949	PROJECT MANAGER Overtime: F01	Class:	EOC: SAL	LABOR	Ē.						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	٠.	Oct 00- Sep 01 617.8 617.8 55,083	Oct 01- Sep 02 0.0 617.8 0 55,083	Oct 02- Sep 03 0.0 617.8 0 55,083	Oct 03- Sep 04 0.0 617.8 0 55,083	Oct 04- Sep 05 0.0 617.8 0 55,083	Oct 05- Sep 06 0.0 617.8 0 55,083	Oct 06- Sep 07 0.0 617.8 0 55,083	Oct 07- Sep 08 0.0 617.8 0 55,083	Oct 08- Sep 09 0.0 617.8 0	Oct 09- Sep 10 0.0 617.8 0 55,083	
Resource: Res Dept:	PROMGR 949	PROGRAM MGR Overtime: F01	Class:	EOC: SAL	LABOR	œ						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	نڍ	Oct 00- Sep 01 726.0 726.0 68,251	Oct 01- Sep 02 421.0 1,147.0 41,659 109,910	Oct 02- Sep 03 873.5 2,020.5 91,552 201,463	Oct 03- Sep 04 873.5 2,894.0 96,950 298,413	Oct 04- Sep 05 873.5 3,767.5 102,698 401,111	Oct 05- Sep 06 873.5 4,641.0 109,721 510,832	Oct 06- Sep 07 873.5 5,514.5 118,946 629,779	Oct 07- Sep 08 873.5 6,388.0 125,371 755,149	Oct 08- Sep 09 873.5 7,261.5 139,322 894,471	Oct 09- Sep 10 210.5 7,472.0 34,609 929,081	

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PBS:	OHEN03			F	Fluor Fer	Fernald,	nc.					DATE: 09/05/01	
WBS: CTRL ACCT: CHARGE NO: COMMENT #:				, 	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	TIMATE SUPPORT WORKSHE R ACTIVITY BASED ESTIMATII (1 FTE EQUALS 1747 HOURS)	EET ING)					ECT MGR: ARED BY: L YEAR:	
Resource: Res Dept:	PURMGR 949	PROC & CONTRACT MGR Overtime: F01	IGR Class:	EOC: SAL	LABOR	~						·	
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	i.	Oct 00- Sep 01 1,092.5 1,092.5 69,155	Oct 01- Sep 02 421.0 1,513.5 28,051 97,206	Oct 02- Sep 03 614.3 2,127.8 43,353	Oct 03- Sep 04 873.5 3,001.3 65,280	Oct 04- Sep 05 873.5 3.874.8 69,150 274,988	Oct 05- Sep 06 873.5 4,748.3 73,879 348,867	Oct 06- Sep 07 873.5 5,621.8 80,091	Oct 07- Sep 08 873.5 6,495.3 84,416 513,374	Oct 08- Sep 09 349.4 6,844.7 37,524 550,898	Oct 09- Sep 10 42.1 6,886.8 4,661 555,558		
Resource: Res Dept:	QACENG 949	QA ENGINEER Overtime: F01	Class:	EOC: SAL	LABOR	~							
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	₩	Oct 00- Sep 01 720.7 720.7 33,123	Oct 01- Sep 02 0.0 720.7 0	Oct 02- Sep 03 0.0 720.7 0	Oct 03- Sep 04 0.0 720.7 0 33,123	Oct 04- Sep 05 0.0 720.7 0 33,123	Oct 05- Sep 06 0.0 720.7 0	Oct 06- Sep 07 0.0 720.7 0	Oct 07- Sep 08 0.0 720.7 0	Oct 08- Sep 09 0.0 720.7 0	Oct 09- Sep 10 0.0 720.7 0		
Resource: Res Dept:	QACTEC 949	QA/QC TECH Overtime: F01	Class:	EOC: SAL	LABOR	٠ ٣							
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	i ø	Oct 00- Sep 01 2,007.3 2,007.3 61,985	Oct 01- Sep 02 421.0 2,428.3 13,684 75,669	Oct 02- Sep 03 0.0 2,428.3 75,669	Oct 03- Sep 04 174.7 2,603.0 6,369 82,039	Oct 04- Sep 05 174.7 6,747.6 88,785	Oct 05- Sep 06 349.4 3,127.1 14,416 103,202	Oct 06- Sep 07 349.4 3,476.5 15,628 118,830	Oct 07- Sep 08 216.9 3,693.4 10,226 129,056	Oct 08- Sep 09 174.7 3,868.1 9,153 138,209	Oct 09- Sep 10 0.0 3,868.1 0		
Resource: Res Dept:	RADENG 948	RAD ENGINEER Overtime: F02	Class:	EOC: SAL	LABOR	œ							
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	.: ;;	Oct 00- Sep 01 726.0 726.0 34,267 34,267	Oct 01- Sep 02 421.0 1,147.0 20,916 55,183	Oct 02- Sep 03 88.3 1,235.3 4,647 59,830	Oct 03- Sep 04 614.3 1,849.6 34,232 94,062	Oct 04- Sep 05 873.5 2,723.1 51,562 145,624	Oct 05- Sep 06 873.5 3,596.6 55,088	Oct 06- Sep 07 873.5 4,470.1 59,720 260,432	Oct 07- Sep 08 873.5 5,343.6 62,945 323,377	Oct 08- Sep 09 349.4 5,693.0 27,980 351,357	Oct 09- Sep 10 0.0 5,693.0 0	·	
Resource: Res Dept:	S&HMGR 949	SAFETY & HEALTH MGR Overtime: F01	GR Class:	EOC: SAL	LABOR	· c c							

DATE: 09/05/01	PROJECT MGR: JD Chiou CAM: JD Chiou PREPARED BY: W. F. FICK FISCAL YEAR: 2001-2010			Oct 08- Oct 09- Sep 09 Sep 10 1,000.0 1,000.0 7,000.1 8,000.1 1,250 1,286 8,045 9,331		Oct 08- Oct 09- Sep 09 Sep 10 0.0 0.0 265.4 265.4 0 0 16,572 16,572		Oct 08- Oct 09- Sep 09 Sep 10 0.0 0.0 107.3 107.3 0 0 5,476 5,476	Oct 08- Oct 09- Sep 09 Sep 10 6,459.8 968.3 75,565.4 76,533.7 547,953 107,219
		Oct 07- Sep 08 873.5 5,604.7 73,921 395,899		Oct 07- Sep 08 1,000.0 6,000.1 1,214 6,795		Oct 07- Sep 08 0.0 265.4 0 0		Oct 07- Sep 08 0.0 107.3 0	Oct 07- Sep 08 9,732.0 69,105.6 748,451
		Oct 06- Sep 07 873.5 4,731.2 70,133		Oct 06- Sep 07 1,000.0 5,000.0 1,180 5,581		Oct 06- Sep 07 0.0 265.4 0		Oct 06- Sep 07 0.0 107.3	Oct 06- Sep 07 10,766.3 59,373.6 781,363
l, Inc.	SHEET AATING IRS)	Oct 05- Sep 06 873.5 3,857.7 64,694 251,845	S	Oct 05- Sep 06 1,000.0 4,000.0 1,147 4,401		Oct 05- Sep 06 0.0 265.4 0		Oct 05- Sep 06 0.0 107.3 0	Oct 05- Sep 06 10,766.3 48,607.3 721,891
Fernald,	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	Oct 04- Sep 05 873.5 2,984.2 60,552 187,151	SUBCONTRACTORS	Oct 04- Sep 05 1,000.0 3,000.0 1,115 3,254	LABOR	Oct 04- Sep 05 0.0 265.4 0	LABOR	Oct 04- Sep 05 0.0 107.3	Oct 04- Sep 05 7,861.5 37,841.0 583,022
Fluor F	ESTIMATE S FOR ACTIVI (1 FTE E0	Oct 03- Sep 04 614.3 2,110.7 40,201 126,599	EOC: SI SUB	Oct 03- Sep 04 1,000.0 2,000.0 1,084 2,139	EOC: L/ SAL	Oct 03- Sep 04 0.0 265.4 0 16,572	EOC: L/ SAL	Oct 03- Sep 04 0.0 107.3 0	Oct 03- Sep 04 6,646.2 29,979.5 470,732
		Oct 02- Sep 03 349.4 1,496.4 21,592 86,398	Class: Si	Oct 02- Sep 03 1,000.0 1,000.0 1,055	Class: So	Oct 02- Sep 03 0.0 265.4 0	Class: S.	Oct 02- Sep 03 0.0 107.3 0 5,476	Oct 02- Sep 03 3,497.8 23,333.3 237,870
		Oct 01- Sep 02 421.0 1,147.0 24,563 64,805		Oct 01- Sep 02 0.0 0.0 0		Oct 01- Sep 02 0.0 265.4 0		Oct 01- Sep 02 0.0 107.3 0	Oct 01- Sep 02 3,662.7 19,835.5 204,258
		Oct 00- Sep 01 726.0 726.0 40,242 40,242	SUBS Overtime: FY03	Oct 00- Sep 01 0.0 0.0 0	TECH/PROG SUPT MGR Overtime: F01	Oct 00- Sep 01 265.4 265.4 16.572	WASTE ENGINEER Overtime: F01	Oct 00- Sep 01 107.3 107.3 5,476	Oct 00- Sep 01 16,172.8 16,172.8 815,362
OHFN03	1.1.C.A CECP CECP1 F03-030	#	SERVSUB 949	÷	TPSMGR 949	÷	WSTENG 949	÷	:S'
PBS:	WBS: CTRL ACCT: CHARGE NO: COMMENT #:	Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Resource: Res Dept:	Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:	Resource: Res Dept:	Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Resource: Res Dept:	Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	GRAND TOTALS Yr Hours: Cum Hours: Yr Total Cost:

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PBS:	OHFN03	Fluor Fernald, Inc.	DATE:	09/05/01
WBS:	1.1.C.A	ESTIMATE SUPPORT WORKSHEET	PROJECT	PROJECT MGR. ID Chini
CTRL ACCT:	r: CECP	FOR ACTIVITY BASED ESTIMATING	CAM:	D Chiou
CHARGE N	HARGE NO: CECP1	(1 FTE EQUALS 1747 HOURS)	PREPARED	PREPARED BY: W. F. FICK
COMMENT	COMMENT #: F03-030		EISCAL VE	FISCAL VEAP: 2001-2010

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PBS:	OHFN03			File	uor Fei	Fernald,	Inc.				DATE:	05-Sep-01
WBS: CTRL ACCT: CHARGE NO:					ESTIMATE SUPF FOR ACTIVITY E (1 FTE EQUAI	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	ING -				PROJECT MGR. JD CHIOU CAM: JD CHIOU PREPARED BY: W. F. FICK	JD CHIOU JD CHIOU W. F. FICK
COMMENT #: Resource: Res Dept:	CLERKS 949	CLERKS Overtime: 1	Class:	EOC:	LABOR	α					FISCAL YEAR:	2002-2010
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	1	Oct 00- Sep 01 0.0 0.0	Oct 01- Sep 02 84.2 84.2 2,117	Oct 02- Sep 03 0.0 84.2 0	Oct 03- Sep 04 12.0 96.2 338 2,456	Oct 04- Sep 05 210.7 308.9 6,295 8,751	Oct 05- Sep 06 385.4 692.3 12,302 21,053	Oct 06- Sep 07 385.4 1,077.7 13,337	Oct 07- Sep 08 385.4 1,463.1 14,057	Oct 08- Sep 09 36.0 1,499.1 1,459	Oct 09- Sep 10 12.0 1,511.1 501	
Resource: Res Dept:	DRFCAD 949	DRAFTER/CAD OPERATOR Overtime: 1	RATOR Class:	EOC:	LABOR	œ			٠			
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	s t	Oct 00- Sep 01 0.0 0.0 0	Oct 01- Sep 02 0.0 0.0 0	Oct 02- Sep 03 176.6 176.6 6,141	Oct 03- Sep 04 361.4 538.0 13,308	Oct 04- Sep 05 1,103.0 1,641.0 43,024 62,473	Oct 05- Sep 06 1,171.5 2,812.5 48,821	Oct 06- Sep 07 1,589.5 4,402.0 71,811	Oct 07- Sep 08 1,601.0 6,003.0 76,237 259,343	Oct 08- Sep 09 409.4 6,412.4 21,664 281,007	Oct 09- Sep 10 54.1 6,466.5 2,951 283,958	
Resource: Res Dept:	ENGCVL 949	ENGINEER CIVIL Overtime:	Class:	EOC: s: SAL	LABOR	œ						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	;;	Oct 00- Sep 01 0.0 0.0	Oct 01- Sep 02 971.3 971.3 55,597	Oct 02- Sep 03 1,315.0 2,286.3 79,726	Oct 03- Sep 04 2,642.0 4,928.3 169,623	Oct 04- Sep 05 3,530.0 8,458.3 240,070 545,015	Oct 05- Sep 06 5,301.0 13,759.3 385,168 930,183	Oct 06- Sep 07 5,301.0 19,060.3 417,553	Oct 07- Sep 08 5,313.0 24,373.3 441,101 1,788,837	Oct 08- Sep 09 1,807.0 26,180.3 166,717 1,955,554	Oct 09- Sep 10 433.0 26,613.3 41,181	
Resource: Res Dept:	ODC600 949	ODC 600 Overtime: FY02	2 Class:	EOC: ODC	000							
Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:	 St.	Oct 00- Sep 01 0.0 0.0 0	Oct 01- Sep 02 3,078.0 3,078.0 3,161	Oct 02- Sep 03 180.0 3,258.0 190 3,351	Oct 03- Sep 04 5,325.0 8,583.0 5,774 9,125	Oct 04- Sep 05 5,325.0 13,908.0 5,935 15,060	Oct 05- Sep 06 5,325.0 19,233.0 6,107 21,167	Oct 06- Sep 07 5,325.0 24,558.0 6,285 27,452	Oct 07- Sep 08 5,325.0 29,883.0 6,467 33,919	Oct 08- Sep 09 5,325.0 35,208.0 6,654 40,573	Oct 09- Sep 10 180.0 35,388.0 231 40,805	
Resource: Res Dept:	ODC700 949	ODC 700 Overtime: FY05	5 Class:	EOC: ODC	ODC							
		Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10	
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PRJMGR PROJECT MANAGER Class: SAL EOC: LABOR Cot 04- Oct 06- Oct 07- Oct 08- I,747.0 I	1 #	000	0:0 0:0 0	0.0 0.0 0	0.0	1,029.0 1,029.0 1,147		1,029.0 3,087.0 1,214 3,542	1,029.0 4,116.0 1,250 4,791	1,029.0 5,145.0 1,286 6,077	0.0 5,145.0 0 6,077	
Oct 00- Oct 01- Oct 03- Oct 04- Oct 05- Oct 06- Oct 07- Oct 08- Sep 01 Sep 02 Sep 03 Sep 04 Sep 06 Sep 06 Sep 07 Sep 08 Sep 09 Sep 01 Sep 02 Sep 03 Sep 04 Sep 06 Sep 07 Sep 08 Sep 09 0.0 508.2 1,315.0 1,747.0 1,747.0 1,747.0 1,747.0 1,747.0 0.0 47,694 183.897 194,799 208,121 225,620 237,806 264,269 oct 01 47,694 178,410 362,307 567,106 765,227 990,847 1,228,653 1,492,921 1 oct 02 47,694 178,410 362,307 567,106 765,227 990,847 1,228,653 1,492,921 1 oct 03- 60ct 04- Oct 04- Oct 04- Oct 06- Sep 06 Sep 07 Sep 08		PROJECT MANAGER Overtime: F02	Class:	EOC: SAL	LABC	JR.				,		
Oct 00- Oct 01- Oct 02- Oct 03- Oct 04- Oct 05- Oct 06- Oct 07- Oct 08- Sep 04 Sep 06 Sep 07 Sep 08 Sep 09	Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Oct 00- Sep 01 0.0 . 0.0	Oct 01- Sep 02 508.2 508.2 47,694 47,694	Oct 02- Sep 03 1,315.0 1,823.2 130,716 178,410	Oct 03- Sep 04 1,747.0 3,570.2 183,897 362,307	Oct 04- Sep 05 1,747.0 5,317.2 194,799 557,106	Oct 05- Sep 06 1,747.0 7,064.2 208,121 765,227	Oct 06- Sep 07 1,747.0 8,811.2 225,620 990,847	Oct 07- Sep 08 1,747.0 10,558.2 237,806 1,228,653	Oct 08- Sep 09 1,747.0 12,305.2 264,269 1,492,921	Oct 09- Sep 10 421.0 12,726.2 65,647 1,558,569	
>	GRAND TOTALS: Yr Hours: Cum Hours: Yr Total Cost:	Oct 00- Sep 01 0.0 0.0 0	Oct 01- Sep 02 1,563.7 1,563.7 108,569 108,569	Oct 02- Sep 03 2,806.6 4,370.3 216,773 325,341	Oct 03- Sep 04 4,762.4 9,132.7 372,941	Oct 04- Sep 05 6,590.7 15,723.4 491,270 1,189,552	Oct 05- Sep 06 8,604.9 24,328.3 661,700 1,851,252	Oct 06- Sep 07 9,022.9 33,351.2 735,819 2,587,072	Oct 07- Sep 08 9,046.4 42,397.6 776,917	Oct 08- Sep 09 3,999.4 46,397.0 462,050 3,826,039	Oct 09- Sep 10 920.1 47,317.1 110,512 3,936,551	

CECP3 OSDF CONSTRUCTION MANAGEMENT

ACCT: GE NO: AENT#: Inree: ept: Total Cost:	PBS:	OHFN03			Ē	Fluor Fe	Fernald, Inc.	, Inc.				DATE	ننب	05-Sep-01
Suverino	WBS: CTRL ACCT: CHARGE NO: COMMENT #:	1				ESTIMATE SUI FOR ACTIVITY (1 FTE EQU.	PPORT WORKSI BASED ESTIMA ALS 1747 HOUR	HEET KTING (S)				PRC CAM PRE FISC	JJECT MGR: JD C A: PARED BY: W. F CAL YEAR: 2001	niou niou FICK 2010
CLERKS COCHOP CO	Resource: Res Dept:	BUYCON 949	BUYER/CONTRACTS Overtime: F01				SO.							
CLERKS COVERITING: FOT CONSTRUCTION CONSTR	Yr Hours: Cum Hours:		Oct 00- 01-Sep 12.6 12.6	Oct 01- 02-Sep 0	Oct 02- 03-Sep 0	Oct 03- 04-Sep 0	Oct 04- 05-Sep 0	Oct 05- 06-Sep 0	Oct 06- 07-Sep 0	Oct 07- 08-Sep 0 12.6	Oct 08- 09-Sep 0	Oct 09- 10-Sep 0 12.6		
CLERKS CLERKS SAL	Yr Total Cost Cum Total Co	st:	528 528	0 528	0 528	0 528	0 528	0 528	0 528	0 528	0 528	0 528		
CNSCOD COCIOD- COCIOD	Resource: Res Dept:	CLERKS 949		ฮ์			S. O.							
CNSCOD CONSTRUCTION COORD EOC: LABOR Cot 04- Oct 06- Oct 07- Oct 08- Oct 08- Oct 07- Oct 08-	Yr Hours: Cum Hours: Yr Total Cost Cum Total Co	::	Oct 00- 01-Sep 1,565.70 1,565.70 37,405 37,405	Oct 01- 02-Sep 421 1,986.70 10,587 47,991	Oct 02- 03-Sep 88.3 2,075.00 2,382 50,343	Oct 03- 04-Sep 174.7 2,249.70 4,927 55,270	Oct 04- 05-Sep 174.7 2,424.40 5,220 60,490	Oct 05- 06-Sep 349.4 2,773.80 11,153	Oct 06- 07-Sep 349.4 3,123.20 12,091 83,734	Oct 07- 08-Sep 349.4 3,472.60 12,744 96,477	Oct 08- 09-Sep 0 3,472.60 0 96,477	Oct 09- 10-Sep 0 3,472.60 0 96,477		
Oct 00- Oct 01- Oct 02- Oct 03- Oct 04- Oct 04- Oct 06- Oct 06- Oct 07- Oct 06- Oct 07- Oct 06- Oct 07- Oct 06- Oct 07- Oct 08- Oct 07- Oct 06- Oct 07- Oct 08- Oct 07- Oct 07	Resource: Res Dept:	CNSCOD 949	CONSTRUCTION CO Overtime:				OR							
CONSTRUCTION ENG 1 Class: 'SAL SAL Oct 04- Oct 05- Oct 06- Oct 07- Oct 08- Oct 06- Oct 07- Oct 08- Oct 06- Oct 07- Oct 08- Oct	Yr Hours: Cum Hours: Yr Total Cost Cum Total Co	· · ·	Oct 00- 01-Sep 1,757.40 1,757.40 55,780 55,780	Oct 01- 02-Sep 210.5 1,967.90 7,033 62,812	Oct 02- 03-Sep 969.4 2,937.30 34,304 97,116	Oct 03- 04-Sep 1,987.00 4,924.30 74,459 171,575	Oct 04- 05-Sep 2,689.50 7,613.80 106,758 278,334	Oct 05- 06-Sep 2,943.00 10,556.80 124,810 403,144	Oct 06- 07-Sep 2,943.00 13,499.80 135,304 538,448	Oct 07- 08-Sep 2,942.50 16,442.30 142,588 681,036	Oct 08- 09-Sep 2,107.00 18,549.30 113,463 794,499	Oct 09- 10-Sep 270.5 18,819.80 15,016 809,515		
Oct 00- Oct 01- Oct 02- Oct 03- Oct 04- Oct 05- Oct 06- Oct 06- Oct 07- Oct 08- 01-Sep 02-Sep 03-Sep 04-Sep 06-Sep 07-Sep 08-Sep 08-Sep 8,279.80 1,684.00 1,747.00 4,214.00 8,173.00 8,172.00 6,682.00 8,279.80 9,963.80 11,710.80 15,684.80 19,898.80 28,071.80 36,244.80 44,416.80 51,098.80 51 451,249 96,604 106,151 255,704 287,220 595,157 645,197 679,961 617,854 3,735,096 3	Resource: Res Dept:	CNSENG 949	CONSTRUCTION ENO				OR							
	Yr Hours: Cum Hours: Yr Total Cost Cum Total Co	iš	Oct 00- 01-Sep 8,279.80 8,279.80 451,249	Oct 01- 02-Sep 1,684.00 9,963.80 96,604 547,853		Oct 03- 04-Sep 3,974.00 15,684.80 255,704 909,707	Oct 04- 05-Sep 4,214.00 19,898.80 287,220 1,196,927	Oct 05- 06-Sep 8,173.00 28,071.80 595,157 1,792,083	Oct 06- 07-Sep 8,173.00 36,244.80 645,197 2,437,281	Oct 07- 08-Sep 8,172:00 44,416:80 679,961 3,117,242	Oct 08- 09-Sep 6,682.00 51,098.80 617,854 3,735,096	Oct 09- 10-Sep 541 51,639.80 51,566 3,786,661		

PBS:	OHFN03			Ē	Jor Fe	Fluor Fernald	, Inc.	·				DATE:	05-Sep-01
WBS:	1.1.C.A				ESTIMATE SUP	ESTIMATE SUPPORT WORKSHEET	HEET					PROJECT MGR. JD Chiou	D Chiou
CTRL ACCT: CHARGE NO:					FOR ACTIVITY (1 FTE EQUA	FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	ATING (S)					CAM: JD Chiou PREPARED BY: W. F. FICK EISCAL VEAD: 2001-2010	JD Chiou W. F. FICK
Res Dept:	CNSMGR 949	CONSTRUCTION MGR Overtime:	1 Class:	EOC: SAL	LABOR	×							
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	÷	Oct 00- 01-Sep 2.897.20 2.897.20 179,655 179,655	- Oct 02- 02-Sep 842 3,739.20 54,958 234,613	Oct 03- 03-Sep 1,747.00 5,486.20 120,778 355,391	04-Sep 1,987.00 7,473.20 145,470 500,861	4- Oct 05- 05-Sep 2.107.00 9,580.20 1 163,399 664,260	05- Oct 06-Sep 3,899.00 13,479.20 123,049	07-Sep 3,959.00 7,438.20 355,600 ,342,909	Oct 07- Oct 08- 08-Sep 3,958.00 21,396.20 2 374,711	09-Sep 2,648.00 4,044.20 278,588 ,996,208	Oct 09- 10-Sep 541 24,585,20 58,671 2,054,879		
Resource: Res Dept:	ENGINR 949	ENGINEER Overtime: F01	Class:	EOC: SAL	LABOR	ĸ							
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	::	Oct 00- Oct 01- 01-Sep 176.8 176.8 12,157 12,157	- Oct 02- 02-Sep 0 176.8 0	Oct 03- 03-Sep 0 176.8 0 12,157	00t 04- 04-Sep 0 176.8 0	4- Oct 05- 05-Sep 0 176.8 0 12,157	05- Oct 06- 06-Sep 0 176.8 12,167	06- 07-Sep 0 176.8 0 0	07- Oct 08- 08-Sep 0 176.8 0	09-Sep 0 176.8 0	Oct 09- 10-Sep 0 176.8 12,157		
Resource: Res Dept:	ENSREP 949	ENVIR SCIENCE REP Overtime: F01	Class:	EOC: SAL	LABOR	R.							
Yr Hours: Cum Hours: Yr Total Gost: Cum Total Gost:	.	Oct 00- 01-Sep 25.2 25.2 1,057	Oct 01- 02-Sep 0 25.2 0 1,057	Oct 02- 03-Sep 0 25.2 0 1,057	Oct 03- 04-Sep 0 25.2 0 0	Oct 04- 05-Sep 0 25.2 0	Oct 05- 06-Sep 0 25.2 0	Oct 06- 07-Sep 0 25.2 0 1,057	Oct 07- 08-Sep 0 25.2 0 1,057	Oct 08- 09-Sep 0 25.2 0	Oct 09- 10-Sep 0 25.2 0		
Resource: Res Dept:	GLMNT 949	GEN LABOR MAINT Overtime: F01	Class:	EOC: HOU	LABOR	S.							
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:		Oct 00- 01-Sep 2,027.50 2,027.50 49,552 49,552	Oct 01- 02-Sep 0 2,027.50 0 49,552	Oct 02- 03-Sep 0 2,027.50 0 49,552	Oct 03- 04-Sep 0 2,027.50 0 49,552	Oct 04- 05-Sep 0 2,027:50 0 49,552	Oct 05- 06-Sep 0 2,027.50 0 49,552	Oct 06- 07-Sep 0 2,027.50 0 49,552	Oct 07- 08-Sep 0 2,027.50 0 49,552	Oct 08- 09-Sep 0 2,027.50 0 49,552	Oct 09- 10-Sep 0 2,027.50 0 49,552		

PBS:	OHEN03			E	Fluor Fernald,	rnald	, Inc.					DATE: 0	05-Sep-01
WBS: CTRL ACCT: CHARGE NO: COMMENT #:	1.1.C.A CECP CECP3 F03-030	·			ESTIMATE SUF FOR ACTIVITY (1 FTE EQU/	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	HEET ATING tS)					PROJECT MGR: JD Chiou CAM: JD Chiou PREPARED BY: W. F. FICK FISCAL YEAR: 2001-2010	ou 710 710
Resource: Res Dept:	HAZWAT 949	HAZWAT Overtime: F01	Class:	EOC: ss: HOU	LABOR	JR.							
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	1	Oct 00- 01-Sep 170.7 170.7 4,914	Oct 01- 02-Sep 0 170.7 0 0 4,914	Oct 02- 03-Sep 0 170.7 0	Oct 03- 04-Sep 0 170.7 0 4,914	Oct 04- 05-Sep 0 170.7 0 0 4,914	Oct 05- 06-Sep 0 170.7 0 0 4,914	Oct 06- 07-Sep 0 170.7 0	Oct 07- 08-Sep 0 170.7 0 0 4,914	Oct 08- 09-Sep 0 170.7 0	Oct 09- 10-Sep 0 170.7 0 0		
Resource: Res Dept:	HRREP 949	HUMAN RESOURCE REP Overtime: F01	REP Class:	EOC: ss: SAL	LABOR	S.							
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	št:	Oct 00- 01-Sep 158.1 158.1 5,681	Oct 01- 02-Sep 0 158.1 0 5,681	Oct 02- 03-Sep 0 158.1 5,681	Oct 03- 04-Sep 0 158.1 0 5,681	Oct 04- 05-Sep 0 158.1 0 5,681	Oct 05- 06-Sep 0 158.1 0 5,681	Oct 06- 07-Sep 0 158.1 0 5,681	Oct 07- 08-Sep 0 158.1 0 5,681	Oct 08- 09-Sep 0 158.1 0 5,681	Oct 09- 10-Sep 0 158.1 0 5,681		
Resource: Res Dept:	MAT300 949	MATERIAL OBJCLASS300 Overtime: F01	S300 Class:	EOC:		MATERIAL							
Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:	st:	Oct 00- 01-Sep 4,627.00 4,627.00 4,627 4,627	Oct 01- 02-Sep 0 4,627.00 0 4,627	Oct 02- 03-Sep 68,900.00 73,527.00 72,671 77,298	Oct 03- 04-Sep 68,900.00 142,427.00 74,706 152,003	Oct 04- 05-Sep 68,900.00 211,327.00 76,797 228,801	Oct 05- 06-Sep 103,350.00 314,677.00 118,537 347,338	Oct 06- 07-Sep 103,350.00 418,027.00 121,974 469,312	Oct 07- 08-Sep 68,900.00 486,927.00 83,674 552,986	Oct 08- 09-Sep 68,900.00 555,827.00 86,101 639,087	Oct 09- 10-Sep 15,900.00 571,727.00 20,446 659,533		
Resource: Res Dept:	ODC600 949	ODC 600 Overtime: F01	Class:	EOC: ss: ODC	ODC								
Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:		Oct 00- 01-Sep 2,832.00 2,832.00 2,832 2,832	Oct 01- 02-Sep 0 2,832.00 0 2,832	Oct 02- 03-Sep 180 3,012.00 190 3,022	Oct 03- 04-Sep 2,238.00 5,250.00 2,427 5,448	Oct 04- 05-Sep 180 5,430.00 5,649	Oct 05- 06-Sep 2,238.00 7,668.00 2,567 8,216	Oct 06- 07-Sep 180 7,848.00 212 8,428	Oct 07- 08-Sep 2,238.00 10,086.00 2,718 11,146	Oct 08- 09-Sep 180 10,266.00 225 11,371	Oct 09- 10-Sep 180 10,446.00 231 11,603		

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PBS:	OHFN03				uor Fe	Fluor Fernald,	', Inc.				DATE:	05-Sep-01
WBS: CTRL ACCT: CHARGE NO: COMMENT #:	1.1.C.A CECP CECP3 F03-030				ESTIMATE SU FOR ACTIVITY (1 FTE EQL	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	SHEET ATING RS)				PROJECT MGR: JD Chiou CAM: JD Chiou PREPARED BY: W. F. FIC	5 G. .×. 7. 7.
Resource: Res Dept:		ODC 700 Overtime: F05	Class:	EOC:	ODC						FISCAL YEAR:	2001-2010
Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:	, н	Oct 00- 01-Sep 0 0 0	Oct 01- 02-Sep 0 0 0 0	Oct 02- 03-Sep 0 0 0	Oct 03- 04-Sep 0 0 0 0	Oct 04- 05-Sep 1,029.00 1,029.00 1,147	Oct 05- 06-Sep 1,029.00 2,058.00 1,180 2,327	Oct 06- 07-Sep 1,029.00 3,087.00 1,214 3,542	Oct 07- 08-Sep 1,029.00 4,116.00 1,250 4,791	Oct 08- 09-Sep 1,029.00 5,145.00 1,286 6,077	Oct 09- 10-Sep 0 5,145.00 0 6,077	
Resource: Res Dept:	PJCSCH 949	SCHEDULERS Overtime: F01	Class:	EOC:	LABOR	S R						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	נג	Oct 00- 01-Sep 594.2 594.2 31,421	Oct 01- 02-Sep 0 594.2 0 31,421	Oct 02- 03-Sep 0 594.2 0 31,421	Oct 03- 04-Sep 0 594.2 0	Oct 04- 05-Sep 0 594.2 0	Oct 05- 06-Sep 0 594.2 0	Oct 06- 07-Sep 0 594.2 0 31,421	Oct 07- 08-Sep 0 594.2 0 31,421	Oct 08- 09-Sep 0 594.2 0	Oct 09- 10-Sep 0 594.2 0 31,421	
Resource: Res Dept:	PRJMGR 949	PROJECT MANAGER Overtime: F01	Class:	EOC: SAL	LABOR	OR						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	±	Oct 00- 01-Sep 1,974.80 1,874.80 176,073	Oct 01- 02-Sep. 0 1,974.80 0	Oct 02- 03-Sep 0 1,974.80 0	Oct 03- 04-Sep 0 1,974.80 0 176,073	Oct 04- 05-Sep 0 1,974.80 0 176,073	Oct 05- 06-Sep 0 1,974.80 0 176,073	Oct 06- 07-Sep 0 1,974.80 0 176,073	Oct 07- 08-Sep 0 1,974.80 0 176,073	Oct 08- 09-Sep 0 1,974.80 0	Oct 09- 10-Sep 0 1,974.80 0	
Resource: Res Dept:	QACENG 949	QA ENGINEER Overtime: F01	Class:	EOC: SAL	LABOR	OR S						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:		Oct 00- 01-Sep 3,788.00 3,788.00 174,096	Oct 01- 02-Sep 0 3,788.00 0	Oct 02- 03-Sep 0 3,788.00 0 174,096	Oct 03- 04-Sep 0 3,788.00 0 174,096	Oct 04- 05-Sep 0 3,788.00 0 174,096	Oct 05- 06-Sep 0 3,788.00 0	Oct 06- 07-Sep 0 3,788.00 0	Oct 07- 08-Sep 0 3,788.00 174,096	Oct 08- 09-Sep 0 3,788.00 0	Oct 09- 10-Sep 0 3,788.00 174,096	

Page 5 of 6

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PBS:	OHFN03				uor Fe	Fluor Fernald, Inc.	, Inc.					DATE: 05-Sep-01
WBS: CTRL ACCT: CHARGE NO:					ESTIMATE SU FOR ACTIVITY (1 FTE EQU	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	SHEET ATING RS)					PROJECT MGR: JD Chiou CAM: JD Chiou PREPARED BY: W. F. FICK
COMMENT #: Resource: Res Dept:	F03-030 RADENG 949	RAD ENGINEER Overtime: F01	Class:	EOC:	LABOR	OR						FISCAL YEAR: 2001-2010
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	ند	Oct 00- 01-Sep 769.6 769.6 36,325 36,325	Oct 01- 02-Sep 0 769.6 0 36,325	Oct 02- 03-Sep 0 769.6 0	Oct 03- 04-Sep 0 769.6 0	Oct 04- 05-Sep 0 769.6 0	Oct 05- 06-Sep 0 769.6	Oct 06- 07-Sep 0 769.6	Oct 07- 08-Sep 0 769:6 0	Oct 08- 09-Sep 0 769:6	Oct 09- 10-Sep 0 769.6 0	
Resource: Res Dept:	RADTEC 949	RAD TECH Overtime: F01	Class:	EOC: ss: SAL	LABOR	SOR						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	נ	Oct 00- 01-Sep 4,015.10 4,015.10 136,835	Oct 01- 02-Sep 0 4,015.10 0 136,835	Oct 02- 03-Sep 0 4,015.10 136,835	Oct 03- 04-Sep 0 4,015.10 0 136,835	Oct 04- 05-Sep 0 4,015.10 0 136,835	Oct 05- 06-Sep 0 4,015.10 0 136,835	Oct 06- 07-Sep 0 4,015.10 0	Oct 07- 08-Sep 0 4,015.10 0 136,835	Oct 08- 09-Sep 0 4,015.10	Oct 09- 10-Sep 0 4,015.10 0 136,835	
Resource: Res Dept:	S&HMGR 949	SAFETY & HEALTH MGR Overtime: F01	MGR Class:	EOC: ss: SAL	LABOR	S S						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	±	Oct 00- 01-Sep 2,903.70 2,903.70 160,952	Oct 01- 02-Sep 0 2,903.70 0 160,952	Oct 02- 03-Sep 0 2,903.70 0	Oct 03- 04-Sep 0 2,903.70 0 160,952	Oct 04- 05-Sep 0 2,903.70 0 160,952	Oct 05- 06-Sep 0 2,903.70 0	Oct 06- 07-Sep 0 2,903.70 0	Oct 07- 08-Sep 0 2,903.70 0	Oct 08- 09-Sep 0 2,903.70 160,952	Oct 09- 10-Sep 0 2,903.70 0 160,952	
Resource: Res Dept:	SERVSUB 949	SUBS Overtime: F01	Class:	EOC: ss: SUB		SUBCONTRACTORS	φ					
Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:	ي	Oct 00- 01-Sep 337,469.00 337,469 337,469	Oct 01- 02-Sep 57,330.00 394,799.00 58,878 396,347	Oct 02- 03-Sep 0 394,799.00	Oct 03- 04-Sep 0 394,799.00 0 396,347	Oct 04- 05-Sep 0 394,799.00 0 396,347	Oct 05- 06-Sep 0 394,799.00 0 396,347	Oct 06- 07-Sep 0 394,799.00 0 396,347	Oct 07- 08-Sep 0 394,799.00 0 396,347	Oct 08- 09-Sep 0 394,799.00 0 396,347	Oct 09- 10-Sep 0 394,799.00 0 396,347	

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PBS:	OHFN03			L	IVOR T	Lor Fernald, Inc	, Inc.				DATE	.05-Sep-01	12
WBS: CTRL ACCT:	1.1.C.A CECP				ESTIMATE SU FOR ACTIVITY	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING	SHEET ATING				PROJEC CAM:	PROJECT MGR: JD Chiou CAM: JD Chiou	
COMMENT #: F03-030	F03-030				(1 FTE EQI	(1 FTE EQUALS 1747 HOURS)	RS)				PREPA	PREPARED BY: W. F. FICK FISCAL YEAR: 2001-2010	
GRAND TOTALS:	Ë								·				1
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-		
		01-Sep	02-Sep	03-Sep	04-Sep	05-Sep	06-Sep	07-Sep	08-Sep	09-Sep	10-Sen		
Yr Hours:		31,116.40	3,157.50	4,551.70	8,122.70	9,185.20	15,364.40	15,424.40	15,421.90	11.437.00	1.352.50		
Cum Hours:		31,116.40	34,273.90	38,825.60	46,948.30	56,133.50	71,497.90	86,922.30	102,344.20	113,781.20	115,133.70		
Yr Total Cost:		1,858,609	228,058	336,445	557,692	640,742	1,176,453	1,271,594	1,297,646	1,097,517	145.929		
Cum Total Cost	÷	1,858,609	2,086,667	2,423,112	2,980,804	3,621,546	4,797,999	6,069,592	7,367,238	8,464,755	8,610,684		
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Page 6 of 6

CONTROL TEAM

SECTION 1 4.0 RISK PLAN

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Risk/Opportunity Identification and Analysis Form

Project: OSDF Management & Oversight	nt & Oversight	PBS Number: 03			Total Bacalina D	Total Baseline Dellare (Minimum Const.	.,000	100 700 114		
Evaluator: Wolinsky	9	WRS Number: 11 C A			י סנמו המפפווונפ ה	Oligis (William India)	dsel.	/66,607,714		
CAM: J.D. Chiou	Date: 05/01/01	Control Account Number	er: CECP							
Project Task	Bisk and/or Opportunity	Patanta Impant	0=0							
	men analysis objections)	r evential impact	Intention	Inpact		HISK	HISK	Probable	Risk	Risk
			Or Or	Cost \$	Level	Probability	Probability	Cost \$	Critical	Handling
			External	(Maximum		%	Level	(Likelies)	Value	Stratony
			Driver	Case)				Case)		80000
Charge No. CECP1. OSDF			\$ 7 m							
Management										
Provide OSDF Projectized	Period of performance	Twelve-month OSDF	Internal	\$400,000.00	2	50	6	\$200,000,00		2 Accept
Management Staff &	must be extended 12	schedule extension				•			•	T T T T T T T T T T T T T T T T T T T
related ODCs	months due to delay in site with attendant	with attendant								
	critical path	additional labor and								
		overhead costs								
Charge No CECP2 OSDE										
Englished Staff										
31	Dariod of perfermence	Turkey month Ocor	1	00 000 000				•		
	must be extended 12	schedule extension	101111111111111111111111111111111111111	*****	7	O G	· ·	\$200,000.00	N	2 Accept
related ODCs	months due to delay in site with attendant	with attendant								
	original pash	Additional total								
	curcar paru	additional labor and								
Charge No. CFCP3 OSDE		20200 20200								
Construction Management	Section of the second section is	And the second second				Market States				
200										
Provide OSDF Projectized	Period of performance	Twelve-month OSDF	Internal	\$600,000.00	8	90	E .	\$300,000.00	2	2 Accept
related ODCs	months due to delay in site with attendent	with attendant						-		
	critical nath	additional labor and								
		overhead costs								
			T. A. I.	41 100 000 00						
7			l otal:	\$1,400,000.00			Total:	\$700,000.00		

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WBS DICTIONARY CONTROL ACCOUNT/CHARGE NUMBER

	r			
		·		

U.S. DEPARTMENT OF ENERGY WORK BREAKDOWN STRUCTURE DICTIONARY PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
DE-AC24-010H20115		29
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.C.B	ENGINEERING	
7. APPROVED CP NO.		8. DATE OF CHANGES
NEW PER CP# FY01-0115-0003-00		12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCLA/ACA	EW05H303	

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts
Other Direct Costs (ODCs)

b. TECHNICAL CONTENT:

This WBS element covers the OSDF engineering support necessary to complete the construction of the On-Site Disposal Facility (OSDF) within the eastern area of the FEMP site. The OSDF engineering consists of the completion of the preparation of certified for construction (CFC) packages for up to seven OSDF cells and the OSDF infrastructure based on the current OSDF final design including Design Criteria Package (DCP), calculations, design drawings, technical specifications and support plans approved by DOE and the regulatory agencies (US-EPA and Ohio EPA); Title III services, construction quality control (CQC) services; and review of OSDF monitoring data generated from leachate, OSDF groundwater monitoring wells and surface water monitoring.

c. SCOPE OF WORK:

The scope of work for these activities is specifically defined in Control Account CAEN. The key elements of this scope of work are as follows:

- OSDF Design Excluding Final Cell
- OSDF Design Final Cell
- OSDF CQC Services
- OSDF Title III Services

WORK SPECIFICALLY EXCLUDED:

- Construction of OSDF and OSDF infrastructure.

U.S. DEPARTMENT OF ENERGY WORK BREAKDOWN STRUCTURE DICTIONARY PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
DE-AC24-010H20115		29
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.C.B	ENGINEERING	
7. APPROVED CP NO.		8. DATE OF CHANGES
NEW PER CP# FY01-0115-0003-00	· .	12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCLA/ACA	EW05H303	

11. ELEMENT TASK DESCRIPTION

- CQC services during the months of January March (3 months).
- System Safety Reviews (SSRs) for OSDF construction and impacted material placement.
- Test Pad program for gray till.
- West Borrow Area investigation and engineering.
- Engineering design not included in the current approved OSDF final design.
- Support to develop, install, monitor, and perform data collection and interpretation for the OSDF Stewardship Program.
- Support for OSDF Control and Management and corrective action design if required.
- Preparation of OSDF Post-Closure Reports (annual, five-year, and at OSDF completion).
- Wheel wash facilities for OSDF impacted material placement.
- OSDF Engineering staff charged to control account CECP.
- Centralized services.

	WORK SCOPE DEFINIT (Control Account)	ION		
1. PROJECT TITLE	2. DATE			
FEMP (DEFENSE)	09/05/20	001	Page 1	
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME			
1.1.C.B	ENGINEERING			
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE		7. WBS ELEMENT MANAGER	
49	JD CHIOU / 648-3726		JD CHIOU	
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE			
EW05H3030	ON-SITE DISPOSAL FACIL	ITY	·	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW	SCOPE?		11. ESTIMATED START / COMPLETION DATE	
NEW PER CP# FY01-0115-0003-00	i		12/00 - 01/10	
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)			
CAEN	OSDF ENGINEERING			

a. ELEMENTS OF COST:

Labor Materials Subcontracts Other Direct Costs

b. TECHNICAL CONTENT:

This control account covers the OSDF engineering support necessary to complete the construction of the OSDF within the eastern area of the FEMP site. The OSDF engineering consists of the completion of the preparation of CFC packages for up to seven OSDF cells and the OSDF infrastructure based on the current OSDF final design, including the DCP, calculations, design drawings, technical specifications and support plans approved by DOE and the regulatory agencies; Title III services, CQC services and review of OSDF monitoring data generated from leachate, OSDF groundwater monitoring wells and surface water monitoring.

c. SCOPE OF WORK:

The scope of work for these activities is specifically defined in the following charge numbers:

CAEN1 - OSDF Design

CAEN5 - OSDF CQC Services

CAEN6 - OSDF Title III Services

d. WORK SPECIFICALLY EXCLUDED:

Project Manager	Control Account Manager	Control Team Manager	

WORK SCOPE DEFINITION (Control Account)			
1. PROJECT TITLE		2. DATE	
FEMP (DEFENSE)		09/05/2001	Page 2
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAM	ME .	
1.1.C.B	ENGINEERING		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE		7. WBS ELEMENT MANAGER
49	JD CHIOU / 648-3726		JD CHIOU
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPOSAL FACILITY		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE	
NEW PER CP# FY01-0115-0003-00		12/00 - 01/10	
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ON	E LINE)	
CAEN	OSDF ENGINEERING		

Construction of OSDF and OSDF infrastructure

CQC services during the months of January-March (3 months)

System Safety Reviews (SSRs) for OSDF construction and impacted material placement

Test Pad program for gray till

West Borrow Area investigation and enginering

Engineering design not included in the current approved OSDF final design

Support to develop, install, monitor and perform data collection and interpretation for the OSDF Stewardship program

Support for OSDF control and management and corrective action design if required

Preparation of OSDF post-closure reports (annual, five-year, and at OSDF completion)

Wheel wash facilities for OSDF impacted material placement

OSDF engineering staff charged to control account CECP

Centralized services

WORK SCOPE DEFINITION (Work Package)			
1. PROJECT TITLE	2. DATE		
FEMP (DEFENSE)	09/05/2001	Page 1	
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME		
1.1.C.B	ENGINEERING		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER	
49	JD CHIOU/648-3726	JD CHIOU	
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPOSAL FACILITY		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE	
NEW PER CP# FY01-0015-0003-00		12/01 - 7/08	
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)		
CAEN1	OSDF DESIGN		

a. ELEMENTS OF COST:

Labor

Subcontractors

b. TECHNICAL CONTENT:

The On-Site Disposal Facility (OSDF) footprint consists of 7 cells that comprise approximately 64 acres in the northeast corner of the FEMP. OSDF design services under this charge number include the preparation of CFC packages for 6 cell covers (Cells 2 through 7) and 4 cell liners (Cells 4 through 7), as well as OSDF infrastructure construction.

There are no specific drivers identified for this charge number.

c. SCOPE OF WORK:

OSDF design services consist of four tasks: 1) CFC Package for remaining cell liners and final cover systems, 2) Support for procurement of OSDF construction subcontractor, 3) CFC Packages for infrastructure support, and 4) Other OSDF activities in FY2001.

CFC Package for Remaining Cell Liners and Final Cover Systems

Procurement:

Draft design options and negotiate with GeoSyntec Consultants

Preparation of OSDF CFC Package:
Prepare drawings and specifications
Perform internal reviews with support organizations (WAO, QC, etc)

Project Manager	
12/2- D. //_	

Control Account Manager

Control Team Manager

WORK SCOPE DEFINITION (Work Package)			
1. PROJECT TITLE		2. DATE	
FEMP (DEFENSE)		09/05/2001	Page 2
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME		
1.1.C.B	ENGINEERING		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE		7. WBS ELEMENT MANAGER
49	JD CHIOU/648-3726		JD CHIOU
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPOSAL FACILITY		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE	
NEW PER CP# FY01-0015-0003-00		12/01 - 7/08	
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	IE LINE)	
CAEN1	OSDF DESIGN		

Submit project records to ECDC and maintain copies in project file Perform project management and control activities

Support for Procurement of OSDF Construction Subcontractor:

Prepare the solicitation and RFP

Pre-qualify the construction subcontractors

Conduct site visit with qualified subcontractors

Evaluate the proposals

Select the qualified contractor

Award the contract

Submit project records to ECDC and maintain copies in project file Perform project management and control activities

CFC Packages for Infrastructure Support:

Prepare drawings and specifications for:

Access Control Facility

Removal of Temporary and Interim Leachate Line

OMTA Expansion

Construction Water Well

Air Monitoring Station

Perform internal reviews with support organizations (WAO, QC, etc) project records to ECDC and maintain copies in project file

Perform project management and control activities

Other OSDF Activities in FY2001:

This work covers charges to be cross walked from charge number CCCD8 which includes the following tasks:

Title III services for the OSDF borrow area

Review OSDF monitoring data

d. WORK SPECIFICALLY EXCLUDED:

- * All CFC work prior to December 1, 2000 for Cells 1 through 3
- * Test Pad program for gray till.

WORK SCOPE DEFINITION (Work Package)			
1. PROJECT TITLE		2. DATE	
FEMP (DEFENSE)		09/05/2001	Page 3
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME		
1.1.C.B	ENGINEERING		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE		7. WBS ELEMENT MANAGER
49	JD CHIOU/648-3726		JD CHIOU
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPOSAL FACILITY		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE	
NEW PER CP# FY01-0015-0003-00		12/01 - 7/08	
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	IE LINE)	
CAEN1	OSDF DESIGN		

- * West Borrow Area geotechnical investigation and design.
- * Alternative analyses and evaluations requiring changes/revisions to the latest approved OSDF Final Design as on April 15, 2001 including drawings, technical specifications, design criteria, calculations, and support plans.
- * Support to develop, install, monitor, and perform data collection and interpretation for the OSDF Long Term Stewardship Program.
- * Corrective action investigation and design to support OSDF Control and Management.
- * Surveying services required to support OSDF Title III services and CQC support including confirmation surveys during the OSDF construction and infrastructure construction, and impacted materials placement will be performed by Fluor Fernald, Inc. and is included in control account CCPL.
- * Preparation of OSDF Post-Closure Reports (annual, five-year, and at OSDF completion).
- * Design of wheel wash facilities for OSDF impacted material placement.
- * Design, CQC, and Title III services for construction of laydown area at the existing waste pits railyard area north of the production area and additional plant roads.
- * Trailers at the Access Control Facility.
- * Design for water supply line from construction water well to OSDF, borrow area, and infrastructure construction.
- * Drilling and installation of construction water well.
- * Soil and water sampling during drilling of construction water well.
- * Stockpiling of excavated impacted material outside the OSDF.

WORK SCOPE DEFINITION (Work Package)			
1. PROJECT TITLE		2. DATE	
FEMP (DEFENSE)		09/05/2001	Page 4
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME	
1.1.C.B	ENGINEERING		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE		7. WBS ELEMENT MANAGER
49	JD CHIOU/648-3726		JD CHIOU
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPOSAL FACILITY		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE	
NEW PER CP# FY01-0015-0003-00		12/01 - 7/08	
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)		
CAEN1	OSDF DESIGN		
14. ELEMENT TASK DESCRIPTION .			

* Installation of air monitoring stations.

WORK SCOPE DEFINITION (Work Package)					
1. PROJECT TITLE		2 DATE			
FEMP (DEFENSE)		09/05/2001	Page 1		
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAI	ME			
1.1.C.B	ENGINEERING				
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE		7. WBS ELEMENT MANAGER		
49	JD CHIOU/648-3726		JD CHIOU		
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE				
EW05H3030	ON-SITE DISPO	SAL FACILITY			
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?			11. ESTIMATED START / COMPLETION DATE		
NEW PER CP# FY01-0015-0003-00)		10/02 - 12/09		
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	E LINE)			
CAEN5	OSDF CQC SERVICES				

a. ELEMENTS OF COST:

Labor Subcontractors

b. TECHNICAL CONTENT:

The On-Site Disposal Facility (OSDF) footprint consists of 7 cells that comprise approximately 64 acres in the northeast corner of the FEMP. Construction quality-control (CQC) services are needed for the remaining liners and caps, waste placement activities, infrastructure work and borrow-area development.

There are no specific drivers identified for this charge number.

c. SCOPE OF WORK:

Construction CQC services consist of two tasks: 1) Select CQC Subcontractor and 2) CQC Services.

Select and provide oversight of CQC Subcontractor
Prepare the solicitation and RFP
Pre-qualify the CQC subcontractors
Evaluate the proposals
Select the qualified subcontractor
Award the contract
Submit project records to ECDC and maintain copies in project file
Perform project management and control activities

CQC Services

Complete general employee and site worker training

Project Manager

Control Account Manager

Control Team Manager

Control Team Manager

WORK SCOPE DEFINITION (Work Package)					
1. PROJECT TITLE		2. DATE			
FEMP (DEFENSE)		09/05/2001	Page 2		
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME			
1.1.C.B	ENGINEERING				
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER		
49	JD CHIOU/648-	-3726	JD CHIOU		
BUDGET AND REPORTING NUMBER	9. BUDGET TITLE				
EW05H3030	ON-SITE DISPO	SAL FACILITY			
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?		11. ESTIMATED START / COMPLETION DATE		
NEW PER CP# FY01-0015-0003-00			10/02 - 12/09		
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	IE LINE)			
CAEN5	OSDF CQC SERVICES				

Prepare Health and Safety Plan

Observe methods of excavation, stockpiling and interim restoration, as carried out in the borrow area

Observe placement of impacted material

Perform inventory of geosynthetic materials

Ensure technical specifications are met for field work

Perform onsite and offsite QC testing

Provide a fully-equipped onsite field laboratory for conformance testing Prepare daily reports, tests results, weekly schedule, manpower and project reports

Perform quality audit on geosynthetic testing laboratory

d. WORK SPECIFICALLY EXCLUDED:

All CQC work prior to December 1, 2000 for Cells 1 through 3.

Test Pad program for gray till.

West Borrow Area geotechnical investigation and design.

Alternative analyses and evaluations requiring changes/revisions to the latest approved OSDF Final Design as on April 15, 2001 including drawings, technical specifications, design criteria, calculations, and support plans.

Support to develop, install, monitor, and perform data collection and interpretation for the OSDF Long Term Stewardship Program.

Corrective action investigation and design to support OSDF Control and Management.

Surveying services required to support OSDF Title III services and CQC support including confirmation surveys during the OSDF construction and infrastructure construction, and impacted materials placement will be performed by Fluor Fernald, Inc. and is included in control account CCPL.

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WORK SCOPE DEFINITION (Work Package)					
1. PROJECT TITLE		2. DATE			
FEMP (DEFENSE)		09/05/2001	Page 3		
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAI	ME			
1.1.C.B	ENGINEERING				
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE .	7. WBS ELEMENT MANAGER		
49	JD CHIOU/648-	3726	JD CHIOU		
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE				
EW05H3030	ON-SITE DISPO	SAL FACILITY			
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW	SCOPE?		11. ESTIMATED START / COMPLETION DATE		
NEW PER CP# FY01-0015-0003-00 10/02 - 12/09			10/02 - 12/09		
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	IE LINE)			
CAEN5	OSDF CQC SERVICES				

Preparation of OSDF Post-Closure Reports (annual, five-year, and at OSDF completion).

Design of wheel wash facilities for OSDF impacted material placement.

Design, CQC, and Title III services for construction of laydown area at the existing waste pits railyard area north of the production area and additional plant roads.

Equipment for borrow area test pit excavations to obtain samples for pre-conformance and conformance testing is included in charge account CCPL2.

CQC services for temporary cover system in OSDF Cell #2 and #3.

Engineering staff charges to control account CECP.

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WORK SCOPE DEFINITION (Work Package)					
1. PROJECT TITLE	2. DATE				
FEMP (DEFENSE)	09/05/2001	Page 1			
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME				
1.1.C.B	ENGINEERING				
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER			
49	JD CHIOU/648-3726	JD CHIOU			
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE				
EW05H3030	ON-SITE DISPOSAL FACILITY				
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?	11. ESTIMATED START / COMPLETION DATE			
NEW PER CP# FY01-0015-0003-00	10/01 - 1/10				
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)				
CAEN6 14. ELEMENT TASK DESCRIPTION	OSDF TITLE III SERVICES				

a. ELEMENTS OF COST:

Labor Subcontractor

b. TECHNICAL CONTENT:

The On-Site Disposal Facility (OSDF) footprint consists of 7 cells that comprise approximately 64 acres in the northeast corner of the FEMP. Title III services under this work scope will support construction activities for the borrow area, placement of impacted material, construction of remaining liners and caps, and infrastructure tasks.

There are no specific drivers identified for this charge number.

c. SCOPE OF WORK:

Title III services consist of two tasks: 1) Select Title III Subcontractor and 2) Title III Services.

Select Title III Subcontractor:
Prepare the solicitation and RFP
Pre-qualify the subcontractors
Evaluate the proposals
Select the qualified subcontractor
Award the contract
Submit project records to ECDC and maintain copies in project file
Perform project management and control activities

Title III Services:

Project Manager	Control Account Manager	Control Team Manager	

WORK SCOPE DEFINITION (Work Package)					
1. PROJECT TITLE		2. DATE			
FEMP (DEFENSE)		09/05/2001	Page 2		
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME			
1.1.C.B	ENGINEERING				
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER		
49	JD CHIOU/648-	3726	JD CHIOU		
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE				
EW05H3030	ON-SITE DISPOSAL FACILITY				
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? 11. ESTIMATED START / COMPLETION DA				
NEW PER CP# FY01-0015-0003-00	W PER CP# FY01-0015-0003-00 10/01 - 1/10				
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)				
CAEN6	OSDF TITLE III SERVICES				

Prepare Health and Safety Plan for Title III services

Mobilize and demobilize the certifying engineer and administrative assistant Review technical specifications, construction drawings, support plans and related contract documents

Review OSDF design criteria and support calculations

Review and approve technical submittals, work plans, and other CFC submittals Monitor, review, evaluate and interpret CQC test results, waste manifestation records and tracking information

Review and approve as-built surveys for liners, caps, material placement, and infrastructure construction

Coordinate Title III services with OSDF engineering, construction, QC and CQC subcontractor

Prepare, review, evaluate and approve DCNs, RCIs, BCRs, and redline drawings Interpret and clarify specifications, drawings, work plans, and contract documents, as needed

Prepare the yearly OSDF CQA Certification Report

Attend project meetings related to material procurement, construction activities, and Title III services

Monitor/observe, confirm compliance, and document construction of the OSDF and field related activities

Certify construction materials

Provide technical assistance to OSDF engineering and construction in evaluating claims or change orders submitted by the construction subcontractor Maintain red-line CFC documents

Prepare and submit weekly Title III progress reports to engineering manager Provide management and administrative support to perform Title III services Visit GCL and GML manufacturing plants annually to inspect materials and sample materials for conformance testing

d. WORK SPECIFICALLY EXCLUDED:

- · All Title III work prior to December 1, 2000 for Cells 1 through 3.
- · Test Pad program for gray till.

WORK SCOPE DEFINITION (Work Package)						
1. PROJECT TITLE		2. DATE				
FEMP (DEFENSE)		09/05/2001	Page 3			
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME				
1.1.C.B	ENGINEERING					
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER			
49	JD CHIOU/648-	3726	JD CHIOU			
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE					
EW05H3030	ON-SITE DISPO	SAL FACILITY				
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?			11. ESTIMATED START / COMPLETION DATE			
NEW PER CP# FY01-0015-0003-00			10/01 - 1/10			
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	E LINE)				
CAEN6	OSDF TITLE II	I SERVICES				

- · Engineering staff charges to control account CECP.
- · West Borrow Area geotechnical investigation and design.
- Alternative analyses and evaluations requiring changes/revisions to the latest approved OSDF Final Design as on April 15, 2001 including drawings, technical specifications, design criteria, calculations, and support plans.
- Support to develop, install, monitor, and perform data collection and interpretation for the OSDF Long Term Stewardship Program.
- $\boldsymbol{\cdot}$ Corrective action investigation and design to support OSDF Control and Management.
- Surveying services required to support OSDF Title III services and CQC support including confirmation surveys during the OSDF construction and infrastructure construction, and impacted materials placement will be performed by Fluor Fernald, Inc. and is included in control account CCPL.
- · Preparation of OSDF Post-Closure Reports (annual, five-year, and at OSDF completion).
- · Design of wheel wash facilities for OSDF impacted material placement.
- · Design, CQC, and Title III services for construction of laydown area at the existing waste pits railyard area north of the production area and additional plant roads.

SECTION 2

1.0 NARRATIVE

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1. PROJECT TITLE:	2. DATE: 09/10/01	3. PBS#: 03
ON-SITE DISPOSAL FACILITY PROJECT		
4. WBS ELEMENT CODE:	5. WBS ELEMENT TITLE:	
1.1.C.B.	OSDF ENGINEERING	
6. CAM NAME/ PHONE:	7. CAM SIGNATURE:	
JYH-DONG CHIOU/ 3726		
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: C	CAEN

SECTION 2: CAEN - OSDF ENGINEERING

1.0 NARRATIVE

1.1 OVERVIEW

The closure plan for this control account covers the preparation of the On-Site Disposal Facility (OSDF) certified for construction (CFC) packages for the remaining OSDF cells and infrastructure facilities, Construction Quality Control (CQC) services and Title III services for the construction of the remaining On-Site Disposal Facility (OSDF) and OSDF infrastructure construction, and review of OSDF monitoring data. The following charge numbers are under this control account:

1.1.1 CAEN1 - OSDF Design

This charge number includes the preparation of CFC packages for the remaining OSDF cells including OSDF Cell #7 and the OSDF infrastructure construction. CFC Packages for Cell #1 final cover system and Cells #1 through #3 liners have been completed previously and is not included in this charge number.

1.1.2 CAEN2 through CAEN4

Not used

1.1.3 CAEN5 – OSDF CQC Services

This charge number includes CQC services to support construction activities for the borrow area development, placement of impacted material, construction of remaining OSDF liners and final cover systems, and construction of OSDF infrastructure construction.

1.1.4 CAEN6 - OSDF Title III Services

This charge number includes Title III services to support construction activities for the borrow area development, placement of impacted material, construction of remaining OSDF liners and final cover systems, and construction of OSDF infrastructure construction.

1.1.5 CAEN7 OSDF Monitoring

R1-F03-039

This charge number includes review of leachate, groundwater and surface water monitoring data for the OSDF.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

The following are general assumptions that apply to all charge numbers within this control account:

- The scope and schedule for this Control Account is based on Execution Scenario 6.
- U.S. EPA and OEPA will review and approve design change notices (DCNs) and requests for clarifications (RCIs) within seven calendar days of receipt of our transmittal.
- DOE will review and provide comments on DCNs and RCIs within two working days of receipt.
- PBSs will provide qualified matrixed manpower to support the specific work tasks identified and scheduled in this control account.
- Approved OSDF Final Design drawings, OSDF Technical Specifications, Design Criteria Package, Calculations, Support Plans, and Parts 6-9 of the latest Fluor Fernald, Inc. model contract including submittals and work plan preparation as on April 15, 2001 are applicable for OSDF design, CQC services, Title III services and OSDF monitoring.
- Performance Grades/Hazard Categories for OSDF systems, structures, and components (SSCs) and ALARA analysis for OSDF as of April 15, 2001 will remain the same.
- The OSDF Safety Assessment as of April 15, 2001 will be reviewed annually, but will not require change.
- The impacted material quantities remaining to be placed in the OSDF Cells are based on the April 24, 2001 revision of the "Proposed SDFP Schedule/Budget Scenario 6" spreadsheet (i.e., 1,916,000 in place cubic yards (ICY) total soils/debris including 377,400 ICY of debris).
- Title III services and CQC services can be performed by separate subcontractors.

- Scope and projectized labor for OSDF Engineering administration, management, coordination, and oversight activities is covered under control account CECP.
- Material required for the clay caps, clay liners, vegetative layers, topsoil, general fill, and backfill will be available from the East field Borrow Area (east of the South Entrance Road).
- The area west of Eastfield Borrow Area (west of the South Entrance Road) will remain as a contingency borrow area and no new construction will be permitted in this area.
- Gray till excavated from the borrow area will not be used in construction of clay liners or clay caps.

R1-D-625

- Temporary cover system for Cell #2 and #3, if required in Fiscal Year (FY) 2001 through FY20053, will consist of a heavy-duty surfactant.
- North Access Road will be closed by the end of FY2004.

R1-D-619

 DOE, US EPA, and OEPA will approve placement of the two-foot thick impacted material intervening layer for placement of impacted material after December 2001.

The following are assumptions that apply to specific charge numbers within this control account:

CAEN1 - OSDF Design

GeoSyntec Consultants currently possess existing computer files for the 50 existing conceptual level construction drawings for remaining OSDF cell construction and the computer files for Technical Specifications, Support Plans, and Design Criteria Package.

R1-D-618

- USEPA and OEPA will receive informational copies of the Final OSDF CFC Package for remaining OSDF cells. No USEPA and OEPA review and approval are required. CFC packages for the infrastructure construction will not be submitted to USEPA and OEPA.
- Based on impacted material quantities as on April 24, 2001, 7 OSDF cells will be constructed to place impacted material in the OSDF.
- Existing conditions including topographic information for the preparation of OSDF CFC package for the remaining cells will be based on latest information available as of April 15, 2001.

- Equipment wash facility use will be minimal due to D&D and impacted soil being hauled contaminated directly to the cell.
- Location of equipment wash facility and access facility (east of RIMIA) is acceptable to Land Use Group. Final location will be field adjusted.
- Construction of the Access Control Facility will be completed prior to removal of temporary leachate line.
- Excavated soil material from temporary and interim leachate line removal will be impacted and will be classified and segregated per the Impacted Material Placement Plan.
- No above WAC material will be encountered during removal of temporary/interim leachate line.
- Excavation/trenching limits for the temporary/interim leachate line removal will be provided by soil characterization group prior to removal of line.
- R1 D-614
- Building 79 and the existing water tower will be removed by others prior to construction of OMTA expansion east of the production area. OMTA expansion east of the production area will be completed after D&D removes Building 79 and the existing water tower.
- No additional hydrogeological studies are required for location and construction of construction water well.
- Design and installation of the construction well, pump, and power requirements will be similar to the existing construction water well.
- Construction water well will be drilled by specialty contractor.
- Power will be available within 1000 feet of construction water well location.
- Location of construction water well will be in close vicinity of existing construction water well.
- A new OMTA surface water collection system design shall be completed prior to excavation of utility isolation trench in Area 4A planned for 4th quarter FY2004.
 The existing surface water collection system ,which carries impacted runoff from the OMTA area, may be removed as part of the excavation of Area 4A.
- CADD services will be provided by Fluor Fernald, Inc. projectized labor from FY2002 through FY2010. CADD services manpower may be substituted by a CADD subcontractor.

CAEN5 - OSDF CQC Services

- Projectized and matrixed labor from Quality Control Operations will be covered under control account CCPL. Matrixed labor for Quality Control Operations for geosynthetic laboratory audits are included in CAEN5 scope.
- Fluor Fernald, Inc. will provide, trailer, utilities, phone, computer access, and office furniture to CQC subcontractor.
- CQC Subcontractor will provide on-site testing laboratory for soil index properties, granular material index properties, and compaction testing.
- CQC services required in FY2001 are included in control account CECP. CQC services required in the first quarter of FY2002 to support the OSDF and infrastructure construction are included in control account CAEN.
- OSDF CQC services will be performed between March 15 to December 31 in each year starting from March 15, 2003 and ending December 31, 2009.
- Leak detection testing of primary GML liner in OSDF cell liners #4 through #7 and GML in OSDF cell final covers #2 through #7 will be performed by the Construction Subcontractor.
- Travel expenses for projectized OSDF Engineering personnel will be covered by control account CECP starting in FY2002.

CAEN6 - OSDF Title III Services

- Projectized and matrixed labor from Quality Control Operations will be covered under control account CCPL. Matrixed labor from Quality Control Operations for geosynthetics plant visits and test data review is included in CAEN6 scope.
- Certifying Engineer and administrative assistance for Title III services will be located in facilities provided by Fluor Fernald, Inc.
- Title III services for impacted material placement will not be performed in the January through March 15 each year from FY2004 through FY2009.
- Timely daily, weekly, and monthly reports will be compiled based on collection of test results, impacted material manifests, and tracking information obtained from CQC subcontractors and surveys.

- Fluor Fernald, Inc. will purchase geosynthetic material for OSDF Cell #4 under Option 2 of the existing geosynthetic purchasing contract 99SC001440 and 99SC001441.
- Geosynthetic material for OSDF Cells #5 through #7 liners and OSDF Cell #2 through #7 final cover systems will be purchased under new geosynthetics procurement contracts.
- Travel expenses for projectized OSDF Engineering personnel will be covered by control account CECP starting in FY2002.

R1-F03-039

CAEN7 OSDF Monitoring

None

1.2.2 Exclusions

The following are general exclusions that apply to all charge numbers within this control account:

- Test Pad program for gray till.
- West Borrow Area geotechnical investigation and design.
- Alternative analyses and evaluations requiring changes/revisions to the latest approved OSDF Final Design as on April 15, 2001 including drawings, technical specifications, design criteria, calculations, and support plans.
- Support to develop, install, monitor, and perform data collection and interpretation for the OSDF Long Term Stewardship Program.
- Corrective action investigation and design to support OSDF Control and Management.
- Surveying services required to support OSDF Title III services and CQC support including confirmation surveys during the OSDF construction and infrastructure construction, and impacted materials placement will be performed by Fluor Fernald, Inc. and is included in control account CCPL.
- Preparation of OSDF Post-Closure Reports (annual, five-year, and at OSDF completion).
- Design of wheel wash facilities for OSDF impacted material placement.

 Design, CQC, and Title III services for construction of laydown area at the existing waste pits railyard area north of the production area and additional plant roads.

The following are specific exclusions that apply to each charge number:

CAEN1 - OSDF Design

- Trailers at the Access Control Facility.
- Design for water supply line from construction water well to OSDF, borrow area, and infrastructure construction.
- Drilling and installation of construction water well.
- Soil and water sampling during drilling of construction water well.
- Stockpiling of excavated impacted material outside the OSDF.
- Installation of air monitoring stations.

CAEN5 - OSDF CQC Services

- Equipment for borrow area test pit excavations to obtain samples for pre-conformance and conformance testing is included in charge account CCPL2.
- CQC services for temporary cover system in OSDF Cell #2 and #3.

CAEN6 - OSDF TITLE III Services

None

R1-F03-039

CAEN7 — OSDF Monitoring

- Monitoring data collection will be performed by Environmental Monitoring and Aquifer Restoration/Wastewater.
- Monitoring activities extending beyond the end of the contract.

1.2.3 Government-Furnished Equipment/Services

The following are general DOE Services and Equipment that apply to all charge numbers within this control account:

R1-D-619

- DOE, U.S. EPA, and OEPA will approve placement of the two-foot thick impacted material intervening layer for placement of impacted material after December 2001.
- DOE will provide timely approvals of subcontract procurement actions per DOE-Fluor Fernald, Inc. contract requirements. These procurements would include CQC services, architect/engineer for design services, architect/engineer subcontractor for Title III services, and supplier for geosynthetic materials.

1.3 DRIVERS

General external events that must occur prior to the performance of tasks.

 EPLTS Valvehouse #7 installed and operational by the Aquifer Restoration/Wastewater Project (PBS-04) before end of fourth quarter, FY2006.

The following are specific drivers that apply to each charge number.

CAEN1 - OSDF Design

None

CAEN5 - OSDF CQC Services

None

CAEN6 - OSDF Title III Services

None

R1-F03-039

CAEN7 OSDF Monitoring

Monitoring data will be provided for OSDF Engineering review by appropriate PBSs.

1.4 PROJECT PHYSICAL DESCRIPTION

The On-Site Disposal Facility is located in the northeast corner of the FEMP. The facility is located approximately within survey coordinates N483400, N480000, E1351750, and E1350600. There are several areas adjacent to the OSDF which support the construction of the liners, final cover systems and impacted material placement. These areas include the OSDF Borrow Area, the On-Site Disposal Facility Material Transfer Area (OMTA), including future OMTA Expansion Areas, the Construction Laydown Area including future

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Construction Laydown Area, Contractor's Work Area, and the future Access Control Facility.

The OSDF Borrow Area is south of the OSDF in an area bounded on the east by the Mid Valley pipeline easement, on the west by the South Entrance Road, and on the south by Willey Road. The remaining area for OSDF Borrow Area development is approximately 30 acres and will be developed in seven Subareas. Material for clay liner and cap, vegetative soil layer, topsoil, and fill are excavated from the borrow area.

The OMTA currently consists of three areas located west of the OSDF; the bulk debris area, the container area, and the transite transfer area. These areas of the OMTA will be expanded as the project progresses.

The existing bulk debris area is bounded on the south by the Impacted Material Haul Road, on the north and east by the former production area fence, and on the west by "B" Street. The bulk debris area will be expanded to the west into the area of the existing quonset huts. The expanded bulk debris area will be bounded on the north by the former production area fence, on the south by the Impacted Material Haul Road, on the east by "B" Street and on the west by stockpile SP-7. The expanded area will be approximately 10 acres.

The existing container area is bounded on the south by Building 77, on the west by "E" Street, on the east by the former production area fence, and it extends to the north to the former location of Building 78. The container area will be expanded to the north and to the south. It will be extended to the north to the Impacted Material Haul Road. It will be expanded to the south approximately to the south edge of the existing water tower and contain approximately 4 acres.

The transite transfer area is located north of the tent support structures and south of the impacted haul road and Stockpile 7. The area contains approximately 1 acre.

The existing Construction Laydown Area is located west of the OSDF. It is bounded on the north by the Fire Training Road, on the south by the railyard on the east by the OSDF on the west by HWMU-1. Additional construction laydown area will be built to the south of OSDF contingency Cell #8 and north of the OSDF Borrow Area.

The future access control facility is planned to be located east of RIMIA in the existing gravel lot and west of the north access road. The access control facility will consist of an equipment wash facility, access control trailers, parking lot, and storm water control facilities. A haul road will be constructed east of OSDF Sedimentation Basin 1 and continue around the basin on the north and connect into the existing OMTA.

This Control Account CAEN (OSDF Engineering) includes support by subcontractors and Fluor Fernald, Inc. matrixed labor for OSDF Engineering tasks to be performed from FY2001 through the first quarter of FY2010. OSDF Engineering labor and other direct costs including travel and materials will be covered under Control Account CECP.

1.5 PROJECT PLAN/TECHNICAL SCOPE AND QUANTIFICATION

1.5.1 CAEN1 - OSDF DESIGN

This charge number includes subcontractors and support by Fluor Fernald, Inc. matrixed labor for preparation of OSDF CFC packages for the remaining OSDF cells and infrastructure facilities. This charge number also includes Title III services and OSDF monitoring data review to be performed in FY2001. The tasks and subtasks include:

- CAEN1 Task 1 OSDF CFC Package for remaining cell liner and final cover systems
 - Subtask 1 Procurement for OSDF CFC Package
 - Subtask 2 Preparation of OSDF CFC Package
- CAEN1 Task 2 Support for procurement of OSDF construction subcontractor
- CAEN1 Task 3 OSDF CFC Package for Infrastructure Construction
 - Subtask 1 Preparation of OSDF Access Control Facility CFC Package
 Subtask 2 Preparation of Removal of Temporary and Interim Leachate Line CFC Package
 Subtask 3 Preparation of OSDF OMTA CFC Packages
 Subtask 4 Preparation of OSDF Construction Water Well CFC Package

Preparation of OSDF Air Monitoring Station CFC Package

- CAEN1 Task 4 Other OSDF Activities in FY2001
 - Subtask 1 Provide Title III services
 - Subtask 2 Provide support for review of OSDF monitoring data
- 1) Task #1 OSDF CFC Package for Remaining Cell Liner and Final Cover Systems
- 1.1) Subtask #1 Procurement

Subtask 5

- 1.1)1 Plan/Scope Procurement
- The preparation of the OSDF CFC package will begin in the 4th quarter of FY2001. Procurement activities will be performed between March 15, 2001 through July 9, 2001. GeoSyntec Consultants will prepare the OSDF CFC package. The following scope will be performed by Fluor Fernald, Inc. matrixed labor by Acquisitions/Prime Contract Administrator:

- Add option to existing contract with GeoSyntec Consultants
- Negotiate with GeoSyntec Consultants
- Other scope which is projectized or centralized includes:
- OSDF Engineering will prepare statement of work and cost estimates and assist procurement in contract negotiations. These activities will be covered under control account CECP – OSDF Management and Oversight.
- Coordination and oversight by OSDF Engineering is included in control account CECP –OSDF Management and Oversight.

1.1)2 Quantification - Procurement

 Contract management will require 1.5 projectized OSDF Engineering FTEs for 1.5 months and 1 matrixed procurement/requisition FTE for 1 month.

1.2) Subtask #2 - Preparation of OSDF CFC Package

1.2)1 Plan/Scope - Preparation of OSDF CFC Package

- The OSDF CFC package for the remaining disposal facility cells will begin in Fiscal Year 2001 and continue into the first quarter of FY 2002. The Final OSDF CFC package will be prepared for the following construction scope:
 - construction of liners for OSDF cells #4 through #7;
 - construction of final cover systems for OSDF cells #2 through #7;
 - construction of horizontal monitoring wells for OSDF cells #4 through #7;
 - placement of impacted material in OSDF cells #2 through #7;
 - construction of OSDF haul roads to support cell construction and impacted material placement, and construction of OSDF access corridors within the OSDF battery limits;
 - construction of OSDF sedimentation basin #2, surface water management and erosion control, and backfilling of the existing OSDF sedimentation basin:
 - borrow area development management;
 - relocation of access road from the existing OMTA to OSDF and relocated Access Control Facility; and
 - removal of north access road in footprint area of OSDF.
- The Final OSDF CFC package is scheduled to be completed by GeoSyntec Consultants by the end of the 1st quarter of FY2002 and will include the following scope:

- prepare 85 construction drawings (approx. 50 drawings exist at conceptual level);
- review 24 existing technical specifications and revise as necessary;
- review 8 existing support plans and revise as necessary;
- revise existing Design Calculations Package as necessary;
- revise existing Design Criteria Package as necessary;
- incorporate OSDF DCNs, RCIs, and Support Plan page changes into the CFC documents;
- incorporate Fluor Fernald, Inc. comments;
- incorporate temporary cover specifications into package;
- incorporate DOE and Fluor Fernald, Inc. review comments;
- prepare construction quantities estimate;
- execute project management and site visits; and
- attend one (1) coordination meeting at the Fernald site.
- The following scope will be completed by Fluor Fernald, Inc. matrixed labor:
 - Perform internal review at 30% and 90% completion level by Environmental, Safety, Health, and Quality Integration (ESH&Q), Quality Control Operations, Natural Resources, and Aquifer Restoration/Wastewater.
- Other scope which is projectized includes:
 - Oversight and periodic review during preparation of CFC documents in GeoSyntec's Atlanta, GA office.
 - 30%, 90% and final review by OSDF Engineering is included in control account CECP.
 - Travel expenses by OSDF engineering. Travel expenses in FY2001 will be covered by this charge account. Travel expenses in FY2002 will be covered under control account CECP.
 - Internal review at 30% and 90% completion level by OSDF Construction is covered under a separate projectized control account.
- Other scope which is centralized includes:
 - Document Control/Procedure Management will provide document control activities to the project including preparing 90 copies of each drawing, technical specifications, and quantities estimates for internal, DOE and EPA distribution.
 - Waste Acceptance Organization (WAO) internal review at 30% and 90% completion levels.

1.2)2 Quantification - Preparation of CFC Package

- This subtask includes preparation of an estimated 85 construction drawings, revision of an estimated 24 technical specifications, and preparation of construction quantities estimate. CFC package activities will begin on July 10, 2001 and be completed by November 19, 2001.
- Internal reviews will require 0.1 FTEs each from Environmental, Safety, Health, and Quality Integration (ESH&Q), Quality Control Operations, Aquifer Restoration/Wastewater, and Natural Resources for a 3 month period.
- Oversight and coordination for preparation of OSDF CFC package will require 1.25
 OSDF Engineering FTEs for approximately four (4) months. Travel expenses include
 approximately seven (7), 3-day trips to Atlanta, GA for 2.5 projectized OSDF
 Engineering personnel.
- 2) Task #2 Support for Procurement of OSDF Construction Subcontractor
- 2.1) Plan/Scope Support for Procurement of OSDF Construction Subcontractor
- This task includes selection of Construction Subcontractors to perform OSDF construction from March 15, 2003 through December 31, 2009. A selection process will award a construction contract to a qualified Construction Subcontractor. Selection process will include pre-qualification of Construction Subcontractor, preparation of proposal, solicitation (RFP), evaluation, selection of a qualified construction subcontractor and award. The selection process will start on October 1, 2002 and will be completed by June 30, 2003.
- The following Construction Subcontractor services will be procured to perform activities for borrow area development, OSDF liners and final covers construction, impacted material placement, and OSDF infrastructure construction:
 - Provide labor, material, and, equipment to perform the following construction activities:
 - Borrow area development: excavation, stockpiling, and hauling of fill, backfill, clay liner and cap materials, vegetative layer material, topsoil and general earthwork.
 - OSDF liners cells #4 through #7 and final cover construction Cells #2 through #7: construction of fill, subgrade of clay liners and caps, leak detection testing of GML in primary liner and final cover, drainage layers, biointrusion barrier, choke stone layer, granular filter, vegetative layer, topsoil, vegetation, geosynthetic materials, road

construction, surface water control structures, leachate collection, and leak detection, HDPE pipes, horizontal monitoring wells, and general site work.

- Impacted material placement: placement of impacted material placement, including protective layers and select impacted layers.
- OSDF Infrastructure: construction of general site work, roads, and concrete.
- Construction of OSDF Sedimentation Basin 2, surface water drainage systems, surface water management, and erosion control.
- The following scope of work will be performed by Fluor Fernald, Inc. matrixed labor from Acquisition / Prime Contract Administration.
 - Prepare prequalification criteria for the Construction subcontractor, review prequalification submittals, and prepare a list of qualified subcontractors (bidders).
 - Prepare Request for Proposal (RFP) for the Construction Subcontractor.
 - Arrange and conduct site visit for the bidders for the Construction Subcontractor.
 - Solicit and evaluate proposals.
 - Select Construction subcontractor.
 - Obtain DOE approval, if required, and award subcontract.
 - Subcontract management and administration.
- OSDF Engineering will support the selection process including preparing cost estimates, reviewing technical submittals, and preparing procurement packages.
 These activities are covered under control account CECP – OSDF Management and Oversight.
- 2.2) Quantification Support for Procurement of OSDF Construction Subcontractor
- Selection of Construction Subcontractor will require 1.9 projectized OSDF engineering FTEs for approximately six (6) months and 1.5 matrixed procurement/requisition FTE for approximately six (6) months.

- 3) Task #3 OSDF Infrastructure CFC Packages
- 3.1) Subtask #1 Access Control Facility CFC Package
- 3.1)1 Plan/Scope Access Control Facility CFC Package
- An Access Control Facility is scheduled to be constructed in the third and fourth quarter of FY2003. CFC package for this facility will be completed by the end of the 4th quarter of FY2001. The CFC package will be prepared for the following construction scope:
 - removal of existing equipment wash facility;
 - construction of equipment wash facility;
 - construction of OMTA access road from the existing OMTA to the Access Control Facility;
 - construction of trailer/parking area;
 - surface water management and erosion control;
 - installation and hookup of utilities including electrical, water, and drain line (telephone by others).
- The equipment wash facility is to be designed similar to the existing facility with a gravel base but with revised gravel gradation and an improved impacted drainage collection system. Impacted drainage runoff from the access control facility will be drained into the existing storm drainage inlet in Area 5 until the end of FY2006. Prior to September 30, 2006, the drainage from the access control facility will be diverted into OSDF Cell #7 valve vault. A siltation basin will be designed to settle sediments and used as a contingency basin to detain runoff. Surface water design shall be for a 10 year/24-hour storm event. A gravel parking area will be designed for a minimum of 10 car spaces. The access road from the access control facility to the OMTA will be a minimum 20 foot wide gravel surface. The existing chain-link fence will be relocated and gates will be designed at the ingress and egress.
- OSDF Engineering will perform the following scope under control account CECP:
 - design access control facility and siltation basin;
 - perform drainage analysis;
 - size surface water pipes and ditches;
 - design layout, grading, and utilities in access control facility, and trailer/parking area;
 - layout access road from equipment wash facility to OMTA (2 alternates)
 - design alignment and aggregate base for the access road;
 - oversight and coordination of design with CADD subcontractor;
 - prepare eight (8) technical specification sections;
 - prepare submittal register
 - design equipment wash facility and prepare details

- The following scope to be completed by CADD subcontractors includes:
 - Prepare 5 construction drawings
- Other scope which is centralized includes:
 - Design of mechanical and electrical components of equipment wash facility, design of power and yard lighting (Facilities Engineering and Engineering Services).
- Provide 15 copies for internal, and DOE distribution. (Document Control/Procedure Management).
- 3.1)2 Quantification Access Control Facility CFC Package
- This subtask includes 0.7 FTE of subcontracted CADD operator services for 3 months. Design activities will require 0.8 centralized Engineering services FTEs for 2 months and 1.25 projectized OSDF Engineering FTEs for 3 months.
- 3.2) Subtask #2 Removal of Temporary and Interim Leachate Line CFC Package
- 3.2)1 Plan/Scope Removal of Temporary and Interim Leachate Line CFC Package
- The temporary and interim leachate lines will be removed in three phases. Phase I (Station 17+00 through Station 28+00 of temporary line) is scheduled to be removed in the fourth quarter of FY2001. Phase II (MH-3 Station 9+00 through Station 17+00 of temporary line) is scheduled to be removed in the third quarter of FY2003. Phase III (temporary leachate line from Station 28+00 through 36+00 and interim leachate line from temporary leachate MH-3 to Area 1 Phase I sedimentation basin inlet) is scheduled for removal in the first quarter of FY2006. OSDF Engineering will prepare the CFC package in the fourth quarter of FY2001. OSDF Engineering will perform the following scope under control account CECP:
 - establish trenching limits for removal of leachate line;
 - establish construction and storm water management control;
 - prepare three (3) technical specification sections;
 - oversight and coordination of drawings with CADD subcontractor.
- The following scope will be completed by a CADD subcontractor:
 - prepare 2 construction drawings

- Other scope which is centralized includes:
 - provide 15 copies for internal and DOE distribution (Document Control/Procedure Management)
- 3.2)2 Quantification Removal of Temporary and Interim Leachate Line CFC Package
- This subtask includes 0.5 FTE of CADD subcontracted operator services for 0.5 months. Design activities will require 0.3 projectized OSDF Engineering FTEs over a 1 month period.
- 3.3) Subtask #3 OSDF OMTA CFC Packages
- 3.3)1 Plan/Scope OSDF OMTA CFC Packages
- A new On-Site Materials Transfer Area (OMTA) located north of the impacted haul road is scheduled for construction at the end of FY2001. The CFC package for the new facility is scheduled to be prepared in the third and fourth quarter of FY2001. An expansion of the existing OMTA located south toward the water tower is scheduled for FY2005. The CFC package for the OMTA expansion is scheduled to be prepared in the fourth quarter of FY2004. The CFC packages will be prepared for the following construction scope:
 - construction of graded aggregate surface;
 - construction of surface water management and erosion control;
 - installation of electric power line.
- OSDF Engineering will perform the following scope under control account CECP:
 - plan and profiles of relocated road from OMTA to OSDF for OMTA expansion;
 - design layout, grading, and utilities (except electrical);
 - design surface water management, collection, and erosion control measures;
 - design aggregate base;
 - oversight and coordination of design with CADD subcontractor;
 - prepare five (5) technical specification sections;
 - prepare submittal register.
- The following scope will be completed by a subcontractor or projectized labor:
 - OSDF Engineering will review and approve this CFC package under control account CECP.

- prepare 2 construction drawings for New OMTA (plan, details) (CADD subcontractor);
- prepare 2 construction drawings for OMTA expansion (plan, profile, details)
 (CADD projectized labor).
- Other scope which is centralized includes:
 - design electrical requirements (Engineering Services);
 - provide 15 copies for each CFC package (30 copies total) for internal, and DOE distribution (Document Control/Procedure Management).

3.3)2 Quantification - OSDF OMTA CFC Packages

This subtask includes 0.25 FTE of subcontracted CADD operator services for 2 months. Design activities will require 0.25 projectized OSDF Engineering FTEs for the New OMTA for a 2 month period. A total of 2 construction drawings will be prepared by projectized labor for the OMTA expansion. Design activities will require 0.5 projectized OSDF Engineering FTEs, and one (1) projectized CADD operator FTE for a 1 month period. Design activities will also require 0.3 centralized Engineering services FTEs for a 1 month period for each project.

3.4) Subtask #4 - OSDF Construction Water Well CFC Package

3.4)1 Plan/Scope - OSDF Construction Water Well CFC Package

- A construction water well is scheduled to be constructed in FY2006. The CFC
 package will be prepared in the fourth quarter of FY2005. The CFC package will
 include the following scope performed by Fluor Fernald, Inc. matrixed labor:
 - evaluate hydrogeological conditions (Aquifer Restoration/Wastewater)
 - select flow rate, locate well, design well, and provide specifications (Aquifer Restoration/Wastewater)
- Scope which is projectized includes:
 - OSDF Engineering will review and approve this CFC package under control account CECP.
 - prepare 2 construction drawings (plan and detail)

- Other scope which is centralized includes:
 - select pump and design piping and electrical system (Engineering Services)
 - provide 15 copies for internal, and DOE distribution (Document Control/Procedure Management)

3.4)2 Quantification - OSDF Construction Water Well CFC Package

This subtask includes CADD preparation of an estimated 2 construction drawings. Design activities will require 0.4 matrixed Aquifer Restoration/Wastewater engineer FTEs for a 3 month period and an additional 0.4 matrixed Aquifer Restoration/Wastewater technician for a 3 month period. Activities will also require 0.1 projectized OSDF Engineering FTEs and 0.3 centralized engineering services FTEs, and 0.1 projectized CADD services for a 3 month period.

3.5) Subtask #5 - OSDF Air Monitoring Station CFC Package

3.5)1 Plan/Scope - OSDF Air Monitoring Station CFC Package

- Air monitoring stations are located around the OSDF. The CFC packages will be prepared starting in the third quarter of FY2004 and each year thereafter through FY2008. Each CFC package will include the following:
 - 1 construction drawing (1 each year)
 - 1 electrical specification
 - monitoring station manufacturer's data
- The following scope of work will be completed by Fluor Fernald, Inc. matrixed labor:
 - provide monitoring station manufacturer's data to support electrical (Radiological Protection Operations)
- Scope which is projectized includes:
 - OSDF Engineering will review and approve this CFC package under control account CECP.
 - prepare construction drawings under control account CECP.
- Other scope which is centralized includes:
 - prepare electrical specification for monitoring station (Engineering Services)

provide 20 copies for internal, DOE, and regulatory agency distribution (Document Control/Procedure Management)

3.5)2 Quantification – OSDF Air Monitoring Station CFC Package

This subtask includes CADD preparation of a total of 5 construction drawings.
 Design activities will require 0.1 projectized OSDF Engineering FTEs, 0.1 projectized CADD services FTEs, 0.1 matrixed Radiological Protection Operations FTEs, and 0.1 centralized engineering services FTEs.

4) Task #4 – Other OSDF Activities in FY2001

4.1) Subtask #1 - Provide Title III Services

4.1)1 Plan/Scope - Provide Title III Services

- Title III services for the OSDF Borrow Area Development are specified in the current Borrow Area Management and Restoration Plan, Technical Specifications, and other appropriate Contract Documents. Title III services are required from the remainder of FY2001 for borrow area development activities and cap construction. The Title III services subcontractor shall perform the following scope of work for borrow area development and cap construction activities:
 - Support (Design, Field Observation, Changes) OSDF Control and Management
 - Perform technical submittal review
 - Resident Engineer shall provide oversight of CQC technicians, review CQC data, attend meetings, and compile information into a certification report.
 - Conduct Safety Work group meetings
 - Visit geosynthetic manufacturing plants to inspect material, and sample material for testing.
 - Subcontract geosynthetics testing laboratory for conformance testing
 - Review certification surveys.
- The following scope of work will be completed by Fluor Fernald, Inc. projectized labor by Quality Control Operations covered under control account CCPL:
 - Support (Design, Field Observation, Changes) OSDF Control and Management

- Perform technical submittal review
- Conduct Safety Work group meetings
- Visit geosynthetic manufacturing plants to perform testing lab audit
- The following scope of work will be performed by projectized OSDF Engineering and covered under control account CECP:
 - Support (Design, Field Observation, Changes) OSDF Control and Management
 - Perform technical submittal review
 - Provide procurement support for screening and restoration activities
 - Conduct Safety Work group meetings
 - Provide procurement support to purchase geosynthetics, stone materials, installation services, etc.
 - Review certification surveys.

4.1)2 Quantification - Provide Title III Services

- It is estimated that the Title III services subcontractor will provide one (1) full-time Certifying Engineer and one (1) full-time administrative assistant until the end of FY2001. Upon approval of new contract, activities will be transferred to charge account CAEN6.
- This subtask will require 1.5 projectized OSDF Engineering FTEs for 9 months.
- 4.2) Subtask #2 Provide Support for Review of OSDF Monitoring Data
- 4.2)1 Plan/Scope Provide Support for Review of OSDF Monitoring Data
- This charge number includes review of OSDF groundwater and leachate monitoring data provided by ARWWP surface water data in accordance with the OSDF Surface Water Management and Erosion Control Plan, and OSDF Post Closure and Inspection Plan. This monitoring data will be reviewed by projectized OSDF Engineering at the end of each quarter through September 30, 2001.
- The following scope of work will be performed by OSDF engineering under Control Account CECP:
 - Quarterly, review data provided by ARWWP for OSDF groundwater wells and leachate generation.

- Quarterly, review data provided by OSDF subcontractor and by OSDF
 Construction for the OSDF surface water management and erosion control.
- Quarterly, review monitoring data obtained under OSDF Post Closure and Inspection Plan.

4.2)2 Quantification - Provide Support for Review of OSDF Monitoring Data

This subtask will require 0.1 projectized OSDF Engineering FTEs for a 3 month period.

1.5.2 CAEN2-CAEN4 - Not Used

1.5.3 CAEN5 - OSDF CQC Services

This charge number includes selection of a subcontractor to perform CQC services to support borrow area development, OSDF liners and final cover construction, impacted material placement, and OSDF infrastructure construction from October 1, 2002 through December 31, 2009. This charge number also includes Fluor Fernald, Inc. matrixed labor to support the above scope from October 1, 2002 through December 31, 2009. The following tasks and subtasks are included in the scope for this charge number:

- CAEN5 Task 1 Selection of OSDF CQC Subcontractor
- CAEN5 Task 2 OSDF CQC Services
- Subtask 1 CQC services for OSDF Borrow Area Development
- Subtask 2 CQC services for OSDF Liner, Final Cover, and Infrastructure Construction
- Subtask 3 CQC services for Impacted Material Placement

1) Task #1 - Selection of CQC Subcontractor

1.1) Plan/Scope - Selection of CQC Subcontractor

- This task includes selection of CQC subcontractor to perform on-site and off-site CQC Services from March 15, 2003 through December 31, 2009. A selection process will award the CQC services to a qualified CQC subcontractor. Selection process will include pre-qualification of CQC subcontractor, preparation of proposal, solicitation (RFP), evaluation, selection of a qualified subcontractor, and award. The selection process will start on October 1, 2002 and will be completed by February 1, 2003.
- The following CQC subcontractor services will be procured to support the borrow area development, OSDF liners and final covers construction, impacted material placement, and OSDF infrastructure construction:

- Provide technicians, management and administrative support staff, equipment, and material to perform the following on-site and off-site conformance and performance construction quality control testing and support activities.
- Borrow area development: on-site and off-site preconformance and conformance testing of fill, backfill, clay liner and cap materials, vegetative layer material, topsoil and general earthwork.
- OSDF liners and final cover construction: on-site and off-site conformance and performance testing of fill, subgrade clay liners and caps, drainage layers, biointrusion barrier, choke stone layer, granular filter, vegetative layer, topsoil, vegetation, geosynthetic materials, road construction, surface water control structures, leachate collection, and leak detection, HDPE pipes, horizontal monitoring wells, and general site work.
- Impacted material placement: on-site performance testing of impacted material placement, including protective layers and select impacted layers.
- OSDF Infrastructure: on-site and off-site conformance and performance testing of general site work, geosynthetic material, and concrete.
- Provide daily reports and test results for the on-site and off-site testing, weekly schedule, progress reports, and summary of test results at the end of each construction activity.
- Provide on-site field laboratory with equipment and materials to perform the following on-site testing:
 - Proctor densities including one-point Proctor density (ASTM D698 and D1557)
 - Moisture content (ASTM D2216 or D4643)
 - Atterberg Limits (ASTM D4318)
 - Grain size (ASTM D422)
 - Sieve analyses (ASTM C136)
 - Bulk specific gravity (ASTM C127)
 - Soil classification (ASTM D2487)
 - In-Situ moisture (ASTM D3017)
 - In-Situ density (ASTM D2922)
 - Sand cone (ASTM D1556)
 - Drive Cylinder (ASTM D2937)
 - Geosynthetic material on-site testing
 - Sampling for destructive testing, field testing for peel adhesion
 - Miscellaneous equipment for on-site pre-conformance, conformance and performance testing

- General Employee and Site Worker training for the on-site technicians and management and administrative support staff.
- Coordination with off-site laboratory during off-site testing.
- Coordination with OSDF engineer, Construction, and Quality Control, and
 Title III Subcontractor during on-site testing.
- Health and Safety Plan for the subcontracted CQC services.
- Provide Quality Assurance of CQC documentation
- The following scope of work will be performed by Fluor Fernald, Inc. matrixed labor from Acquisition / Prime Contract Administration.
 - Prepare prequalification criteria for the CQC subcontractors, review prequalification submittals, and prepare a list of qualified subcontractors (bidders).
 - Prepare Request for Proposal (RFP) for the CQC services.
 - Arrange and conduct site visit for the bidders for the CQC services.
 - Solicit and evaluate proposals.
 - Select CQC services subcontractor.
 - Obtain DOE approval, if required, and award subcontract.
 - Audit off-site laboratory(s) of the CQC services subcontractor.
 - Subcontract management and administration.
- OSDF Engineering will support the selection process including preparing cost estimates, reviewing technical submittals, and preparing procurement packages.
 These activities are covered under control account CECP – OSDF Management and Oversight.
- 1.2) Quantification Selection of CQC Subcontractor
- Selection of CQC subcontractor will require 1.5 projectized OSDF engineering FTEs for approximately four (4) months and 1.2 matrixed requisition FTE for approximately four (4) months.

2) Task #2 - CQC Services

 This task includes on-site and off-site testing CQC services to support the borrow area development, OSDF liners and final covers, construction, impacted material placement, and OSDF infrastructure construction. This task is divided into the following OSDF CQC services subtasks:

> Subtask #1 – CQC Services for Borrow Area Development. Subtask #2 – CQC Services for OSDF Liners, Final Covers, and Infrastructure Construction

Subtask #3 – CQC Services for Impacted Material Placement.

• The following scope of work will be performed by Fluor Fernald, Inc. projectized and matrixed labor from Quality Control Operations on an as-needed basis, and is covered under control account CCPL:

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- Observe methods of excavation, stockpiling, and interim restoration activities.
- Provide oversight of CQC subcontractor.
- Observe placement of impacted material
- Perform inventory of geosynthetic material shipments
- Observe field operations to ensure technical specifications are being met.
- Assist CQC subcontractor in observance of geosynthetic installer's performance testing (vacuum box for extrusion welds, and air testing on fusion welds)

2.1) Subtask #1 - CQC Services for Borrow Area Development

2.1)1 Plan/Scope - CQC Services for Borrow Area Development

CQC services for borrow area development will be as specified in technical specification sections 02200, 02215, 02225 and 13000 including OSDF Borrow Area Management Plan, and OSDF Construction Quality Assurance (CQA) Plan.
 Based on construction scope and schedule for Charge Account CCPL2, borrow area development will be performed from March 15, 2003 through December 31, 2008.

- CQC services for borrow area development includes:
 - Provide technicians, management and administrative support staff, equipment, and material to perform on-site and off-site construction quality control testing.
 - General Employee and Site Worker Training
 - Prepare Health and Safety Plan for the subcontracted CQC services
 - On-site and off-site preconformance testing in seven borrow sub-areas to verify potential clay, fill/backfill, vegetative layer, and topsoil material source.
 - Five test pits, 10-feet deep, per sub-area (total 7-subareas) for preconformance testing.
 - On-site and off-site conformance testing on screened clay cap and liner material, vegetative cover layer material, fill and backfill material, and topsoil material. Conformance testing and testing frequently on these materials will be as specified in CQA Plan and technical specifications on Sections 02200, 02215, 02225, 02250, and 02920.
 - Provide on-site field laboratory with equipment and materials for on-site conformance testing.
 - Off-site testing Hydraulic conductivity, Hydrometer, and organic content of topsoil.
 - Daily reports and test results and weekly schedule; manpower, and projects reports
 - Coordination with OSDF construction, engineering, and Quality Control and Title III subcontractor.

2.1)2 Quantification - CQC Services for Borrow Area Development

- Preconformance Testing
- The following on-site and off-site preconformance testing will be performed at each test pit in each subarea (total 7-subareas):
 - Atterberg Limits (ASTM D4318) 3 tests
 - Soil Classification (ASTM D2487) 3 tests
 - Particle Size (ASTM D422) 3 tests

- Standard Proctor (ASTM D698) 3 tests
- In Situ Moisture Content (ASTM D2216 or D4643) 3 tests
- Hydraulic Conductivity (ASTM D5084) 3 tests (off-site)
- Organic Content (ASTM D3042) 1 test
- Hydrometer (ASTM D422) 1 test (off-site)

Conformance Testing

- For number of on-site and off-site conformance testing, see Table 1.
- It is estimated that two full-time technicians will be needed for four (4) months to perform on-site pre-conformance and conformance testing of clay liner material for each cell liner. Similarly, two full-time technicians will be needed for three (3) months to perform pre-conformance and conformance testing of clay cap material for each cell final cover.
- This subtask will require 0.3 projectized OSDF Engineering FTE for 9 months.

Table 1

Borrow Area Development

Preconformance/Conformance Testing for Clay Liner, Vegetative Cover and Topsoil

	Material/Test		Numbe	r of Tests	
		Per Liner	Total for	Per Final	For 6
			4 Liners	Cover	Final Cover
1.	Clay Liner Material				
a.	Particle Size Analysis (ASTM C136)				
b.	Atterberg Limits (ASTM 4318)	40	160	20	120
c.	Moisture Content (ASTM D2216 or	40	160	20	120
	ASTM D4643)	40	160	20	120
d.	Soil Classification (ASTM D2487)		·		
e.	Standard Proctor (ASTM D698)	40	160	20	120
f.	Modified Proctor (ASTM D1567)	40	160	20	120
g.	Hydraulic Conductivity (1)	20	80	10	60
	(ASTM D5084)	10	40	6	36
h.	Hydrometer Analysis (1)				
	(ASTM D422)	4	16	2	12
2.	Vegetative Cover Layer/Fill/Backfill				
	Material				
a.	Particle Size Analysis (ASTM C136)	5	20	10	60
b.	Atterberg Limits (ASTM 4318)	5	20	10	60
c.	Moisture Content (ASTM D2216 or	5	20	10	60
	ASTM D4643)				
d.	Soil Classification (ASTM D2487)	5	20	10	60
e.	Standard Proctor (ASTM D698)	10	40	20	120
3.	Topsoil				
a.	Particle Size Analysis (ASTM C136)	N/A	N/A	5	30
b.	Moisture Content (ASTM D2216 or			5	30
L	ASTM D4643)				

	c. Soil Classification (ASTM D2487)	5	30
0	i. Organic Content (1) (ASTM D2974)	5	30
6	e. Atterberg Limits (ASTM D4318)	5	30

- (1) Off-site Testing
- 2.1) Subtask #2 CQC Services for OSDF Liners, Final Covers and Infrastructure Construction
- 2.1)1 Plan/Scope CQC Services for OSDF Liners, Final Covers, and Infrastructure Construction
- CQC services for remaining OSDF liners for cells #4 through #7 including horizontal monitoring wells and final covers for cells #2 through #7, will be as specified in sections 02200, 02215, 02225, 02240, 02250, 02271, 02280, 02605, 02710, 02712, 02714, 02770, 02772, 02920 and 02930 and Construction Quality Assurance (CQA) Plan. Based on the construction scope and schedule for Construction Control Account CCPL, CQC services for the remaining OSDF liners, and final covers will be performed from October 1, 2001 through December 31, 2001 and from April 1, 2004 through December 31, 2009.
- CQC services for OSDF infrastructure construction will be as specified in Technical Specifications 02200, 02215, 02230, 02930, and for concrete placement shown on the construction drawing(s). CQC services for infrastructure construction will be based on the construction schedule and scope for Charge Account CBSP1 and will be performed from April 1, 2003 through November 30, 2005.
- CQC services for the remaining OSDF liners, final covers, and infrastructure construction includes:
 - Provide technicians, management, and administrative support staff, equipment, and material to perform on-site and off-site construction quality control testing.
 - General Employee and Site Worker Training
 - Prepare Health & Safety Plan for the subcontracted CQC services
 - On-site conformance and performance testing of components of OSDF liners and final covers as listed in Tables 3, 4, and 5. Components of OSDF liner includes: sub-grade clay liner, primary and secondary geosynthetic liners including GML, GCL and geotextile, drainage layers, and related earthwork, surface water controls, and road construction. Components of OSDF final cover includes: non-impacted contouring layer, clay cap, geosynthetic cap including GML, GCL, and geotextile, cover drainage layer, bio-intrusion barrier, choke stone layer, granular filter, vegetative layer, topsoil, and related earthwork and surface water controls.

- On-site field laboratory with equipment and materials for on-site conformance and performance testing.
- Off-site conformance and performance testing of geosynthetic materials, drainage layer material, and bio-intrusion barrier materials.
- Procurement of electric leak detection subcontractor and testing.

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- Electric leak detection will be performed on primary GML liner in each cell liner and GML cap in each final cover.
- Electric leak detection testing subcontractor will provide two technicians, equipment and material required to perform the leak detection test. Fluor Fernald will provide construction water, labor and equipment for delivery and removing water from the test.
- Daily reports and test results and weekly schedule, manpower, and progress reports.
- Coordination with OSDF construction, engineering, Quality Control, and Title III subcontractor.
- The following scope of work will be performed by Fluor Fernald, Inc. matrixed labor from Quality Control Operations:
- Perform quality audit of geosynthetic testing laboratory including travel expenses for each audit trip.
- 2.1)2 Quantification CQC Services for OSDF Liners, Final Covers, and Infrastructure Construction
- Quantities of conformance and performance testing for OSDF liners and final covers will be as shown on Table 3, Table 4, and Table 5
- Estimated number of technicians required for on-site conformance and performance testing of OSDF liner and final cover construction and infrastructure construction are as follows:

Table 2

	On-Site Performance	No. of Technicians Per Liner/Per Final Cover	Duration Per Liner/Per Final Cover (months)
1.	OSDF Liner		
a)	Liner components, except		
	geosynthetic liner.	2	6
b)	Geosynthetic liner.	2	2
2.	OSDF Final Cover		
a)	Final cover components except		
	geosynthetic cap.	2	4
b)	Geosynthetic cap.	2	1
3.	Infrastructure Construction	See Note 1	See Note 1

Note 1: Based on construction scope and schedule for the infrastructure construction, and for liner and final cover construction, no additional technicians are needed for conformance and performance testing of infrastructure construction.

This subtask will require 0.6 projectized OSDF Engineering FTE for 9 months.

This subtask will require 0.3 matrixed Quality Control Operations FTE for a 1 month period each in FY2004, FY2006, and FY2008. Travel expenses for matrixed personnel includes three (3) 2-day trips to geosynthetic testing laboratories.

Table 3
Soil Conformance Testing for OSDF Liner and Final Cover
(Ref: Latest OSDF CQA Plan and Technical Specifications, as of April 25, 2001)

		N	umber of Co	nformance Te	ests
	Material/Test	Per Liner	Total for	Per Final	Total for
			4 Liners	Cover	6 Covers
1.	Drainage Material				
a.	Hydraulic Conductivity(ASTM D2434) (1)	10	40	7	42
b.	Carbonate Content (ASTM D3042) (1)	6	24	3	18
c.	Particle Size Analysis (ASTM C136)	10	40	7	42
d.	Soil Classification (ASTM D2487)	10	40	7	42
2.	Biointrusion Barrier				
a.	Bulk Specific Gravity (ASTM C127)	N/A	N/A	4	24
b.	Maximum Absorption (ASTM C127)			4	24
3.	Choke Stone				
a.	Particle Size Analysis (ASTM C136)	N/A	N/A	2	12
b.	Bulk Specific Gravity (ASTM C127)			2	12
c.	Maximum Absorption (ASTM C127)			2	12
4.	Granular Filter				
a.	Particle Size Analysis (ASTM C136)	N/A	N/A	4	24
b.	Soil Classification (ASTM D2487)			4	24
5.	Contouring Layer				
a.	Particle Size Analysis (ASTM C136)	N/A	N/A	4	24
b.	Atterberg Limits (ASTM D4318)			4	24
c.	Moisture Content (ASTM D2216 or			4	24
	D4643)			4	24
d.	Soil Classification (ASTM D 2487)			4	24
e.	Standard Proctor (ASTM D698)				

(1) Off-site Conformance Testing

Table 4
Off-Site Geosynthetics Conformance Testing for OSDF Liner and Final Cover (Ref. Latest OSDF CQA Plan and Technical Specifications as of April 25, 2001)

		N	umber of Con	formance Te	sts
	Material/Test	Per Liner	Total for	Per Final	Total for
			4 Liners	Cover	6 Covers
1.	Geosynthetic Clay Liner (GCL)				
a.	Hydraulic Conductivity (ASTM D6243)	10	40	5	30
b.	Direct Shear (ASTM D 6243)				
	Internal Testing Interface Testing	10	40	5	30
		10	40	5	30
2.	Geomembrane (GML)				
a.	Density (ASTM D792 Method A or ASTM D1505)	11	44	6	36
b.	Thickness (ASTM D5994)	11	44	6	36
c.	Tensile Strength at Yield (ASTM D638)	11	44	6	36
d.	Tensile Strength at Break (ASTM D638)	11	44	6	36
e.	Elongation at Yield (ASTM D638)	11	44	6	36
f.	Elongation at Break (ASTM D638)	11	44	6	36
g.	Carbon Black Content (ASTM D1603)	11	44	6	36
h.	Carbon Black Dispersion (ASTM D5596)	11	44	6	36
3.	Geotextile Filter				
a.	Mass per Unit Area (ASTM D5261)	6	24	N/A	N/A
b.	Grab Strength (ASTM D4632)	6	24		
c.	Trapezoidal Tear Strength	6	24		
d.	Puncture Resistance	6	24	Ì	
e.	Burst Strength	6	24		
f.	Apparent Opening Size	6	24		
g.	Permittivity	6	24		
4.	Geotextile Cushion or Separator				
a.	Mass per Unit Area (ASTM D5261)	11	44	6	36
b.	Grab Strength (ASTM D4632)	11	44	6	36
c.	Trapezoidal Tear Strength	11	44	6	36
d.	Puncture Resistance	11	44	6	36
e.	Burst Strength	11	44	6	36

Table 5
Performance Testing for Each OSDF Liner and Final Cover
(Ref. Latest OSDF CQA Plan and Technical Specifications as of April 25, 2001

		Nur	nber of Performance Test	S
	Test	Liner	Final Cover	Contouring Layer
1. a.	Soil Tests In-Situ Moisture (ASTM D3017)	5 tests per acre per lift	5 tests per acre per lift	1 test per 10000 SF per lift
b.	In-Situ Density (ASTM D2922)	5 tests per acre per lift	5 tests per acre per lift	1 test per 10000 SF per lift
c.	Sand Cone (ASTM D1556 or Drive Cylinder ASTM D2937)	1 test per 25 nuclear tests	1 test per 25 nuclear tests	1 test per 25 nuclear tests
2. a. b.	Geosynthetic Liners/Caps GCL GML	N/A	N/A	N/A
1)	Peel Adhesion (ASTM 4371)	1 test/500 ft. of seam	1 test/500 ft. of seam	N/A
2)	Bonded Seam Strength (ASTM 4437)	1 test/500 ft. of seam	1 test/500 ft. of seam	N/A
3)	Vacuum Testing	100% extrusion seams	100% extrusion seams	N/A
4)	Air pressure Testing	100% fusion seams	100% fusion seams	N/A
3.	Geotextile	N/A	N/A	N/A

2.3) Subtask #3 - CQC Services for Impacted Material Placement

2.3)1 Plan/Scope - CQC Services for Impacted Material Placement

- CQC services for impacted material placement will be as specified in Technical Specifications Section 13010 including Impacted Material Placement Support Plan.
 CQC services for impacted material placement will be based on construction schedule and scope for control account CCPL3 and will be performed from October 1, 2003 through June 30, 2009.
- CQC services for impacted material placement include:
 - Provide technicians, management and administrative support staff, equipment, and material to perform on-site and off-site construction quality control testing.
 - General Employee, Site Worker, Radiation Work II, Asbestos, and Respirator training for each on-site technician.

- Prepare Health and Safety Plan for subcontracted CQC services
- On-site performance testing for impacted material placement including impacted material protective layers and select impacted material layers in OSDF cells #2 through #7.
- Provide daily reports, test results, impacted material manifests and tracking information, weekly schedule, manpower, and progress report.
- Approve impacted material manifests on a daily basis and track location of impacted material placement on a daily basis.
- Coordination with OSDF construction, engineering, quality control and Title
 III subcontractor.

2.3)2 Quantification - CQC Services for Impacted Material Placement

- Quantities of performance testing for impacted material will be as shown on Table 6.
- Two technicians will be needed from October 1, 2003 through
 December 31, 2003, March 15 through November 15 each year from FY2004
 through FY2008, October 1, 2008, through November 15, 2008 and from
 March 15 through June 30, 2009. In calendar year 2006 and 2007, two additional
 technicians will be needed to support the double shift of impacted material
 placement.
- This subtask will require 0.2 projectized OSDF Engineering FTE for 9 months.

Table 6 Performance Testing for Impacted Material Placement (Ref. Latest OSDF Impacted Material Placement Plan and Technical Specifications as of April 25, 2001)

	Component	No. of test per lift/grid
a. b.	Category 1 material including 1-foot protective impacted layer and 3-foot select impacted layer (liner & cap) In-Situ Moisture (ASTM D3017) In-Situ Density (ASTM D2922) Sand Cone (ASTM D1556) or Drive Cylinder (ASTM D2937)	1 test per 10000 SF per lift 1 test per 10000 SF per lift 1 test per 25 nuclear tests
a. b. c.	Category 2 material grid In-Situ Moisture (ASTM D3017) In-Situ Density (ASTM D2922) Sand Cone (ASTM D1556) or Drive Cylinder (ASTM D2937)	1 test per 250 feet of side berm but not less than twice per lift 1 test per 25 nuclear tests
a. b.	Category 3 material grid In-Situ Moisture (ASTM D3017) In-Situ Density (ASTM D2922) Sand Cone (ASTM D1556) or Drive Cylinder (ASTM D2937)	1 test 10000 SF per 1-foot thick cover lift 1 test per 25 nuclear tests
a. b.	Category 4 material grid In-Situ Moisture (ASTM D3017) In-Situ Density (ASTM D2922) Sand Cone (ASTM D1556) or Drive Cylinder (ASTM D2937)	1 test per 250 feet of side berm but not less than twice per lift and 1 test per 10,000 SF of cover lift 1 test per 25 nuclear tests
а. с.	Category 5 material grid Situ Moisture (ASTM D3017) In-Situ Density (ASTM D2922) Sand Cone (ASTM D1556) or Drive Cylinder (ASTM D2937)	1 test 10000 SF per 1-foot thick cover lift 1 test per 25 nuclear tests

1.5.4 CAEN6 - OSDF Title III Services

This charge number includes selection of a Title III subcontractor, Title III services by subcontractor to support borrow area development, remaining OSDF liners and final covers, construction including infrastructure construction, impacted material placement, and Fluor Fernald, Inc. matrixed labor from October 1, 2001 through January 29, 2010. The following tasks are included in this charge number:

- CAEN6 Task1 Selection of OSDF Title III Subcontractor
- CAEN6 Task 2 OSDF Title III Services

1) Task #1 - Selection of OSDF Title III Subcontractor

1.1) Plan/Scope - Selection of OSDF Title III Subcontractor

- This task includes selection of Title III subcontractor to perform OSDF Title III services at the site. Title III services will be awarded to a qualified subcontractor by a selection process. Selection process will include prequalification of Title III subcontractors, preparation of proposal, solicitation (RFP), evaluation, selection of a qualified subcontractor, and award. This selection process will start on July 1, 2002 and will be completed by December 31, 2002.
- OSDF Title III subcontractor will be provide the following staff and perform Title III services to support borrow area development, remaining OSDF liners and final cover construction, OSDF infrastructure construction, and impacted material placement:
 - A full-time Resident Engineer/Certifying Engineer (hereafter called Certifying Engineer) and a full-time administrative assistant at the site to perform OSDF Title III service. The Certifying Engineer will have a minimum of ten years experience in Title III services, experience in certifying similar waste disposal facilities, and be a registered Professional Engineer in the State of Ohio. The Certifying Engineer will demonstrate knowledge of resident engineering and CQC activities including monitoring, documentation of construction activities in the field, preconformance, conformance, and performance testing, documentation, confirmation of compliance and technical interpretation of the monitoring and test results, and Title III services described below.
- Title III services will be performed for the following construction activities:
 - Borrow Area Development
 - Borrow area development in phases (subareas) including preconformance testing, site preparation, earthwork, screening, conformance testing, stockpiling, stockpile stabilization and interim restoration.

- OSDF Liners, Final Covers, and Infrastructure Construction
- OSDF liner system construction including site preparation, excavation, fill, subgrade preparation, clay liner, primary and secondary liners including geosynthetic liners and drainage layer, access road and haul road construction, surface water controls, fencing and related site work.
- OSDF final cover system construction including site preparation, excavation, fill, impacted and non-impacted surface water management, surface water controls, contouring layer, clay cap, geosynthetic caps, drainage layer, bio-intrusion barrier, choke stone, granular filter, vegetative layer, topsoil, vegetation, access corridors, fencing and related site work.
- OSDF infrastructure construction includes construction of access control facility, removal of the existing temporary leachate (Phase I, II, and III) and interim leachate lines, construction water well, OMTA expansion, and construction laydown area.
- Impacted material placement in OSDF cell #2 through #7 including placement of protective layers and select impacted material layers.

Title III services include:

- Mobilization and demobilization of Certifying Engineer and administrative assistant.
- Review of technical specifications, construction drawings, support plans and related contract documents.
- Review of OSDF design criteria and support calculations.
- Review and approval of technical submittals, work plans, and other submittals specified in the Certified for Construction (CFC) documents.
- Field monitoring, review, evaluation, and interpretation of CQC test results and impacted material manifests and tracking information.
- Review and approval of construction "As-built" surveys for liner system, final cover system, impacted material placement, and infrastructure construction.
- Coordination of Title III services with OSDF engineering, construction,
 Quality Control Operations and CQC subcontractor.
- Prepare, review, evaluate, and approve DCNs, RCIs, NCRs, and contractor's "red-line" drawings.

- Interpretation and clarification of technical documents involving technical specifications, construction drawings, work plans, and related contract documents.
- Preparation of OSDF CQA Certification Report at the end of each calendar year covering OSDF liner and final cover construction, impacted material construction, and OSDF infrastructure construction. Sign and seal CQA Certification Report.
- Attend project meetings related to material procurement, construction activities, and Title III services.
- Monitor/observe, confirm compliance, and document construction of the OSDF and field related activities.
- Construction material certification.
- Provide technical assistance to the OSDF Engineering and Construction in evaluation of change order and/or claims by the Construction Contractor and/or material supplier.
- Maintain "red-line" CFC documents.
- Prepare and submit weekly Title III services progress reports to Engineering Manager.
- Prepare Health & Safety Plan for subcontracted Title III services.
- Provide management and administrative support to perform Title III services.
- Visit GCL and GML manufacturing plants (one visit per liner and cap) to inspect materials and sample materials for conformance testing.
- The following scope of work will be performed by Fluor Fernald, Inc. matrixed labor from Acquisition/Prime Contract Administration:
 - Prepare prequalification criteria for the Title III services subcontractors, review prequalification submittals and prepare a list of qualified subcontractors (bidders).
 - Prepare Request for Proposal (RFP) for the Title III services.
 - Arrange and conduct site visit for the bidders for the Title III services.
 - Solicit and evaluate proposals.

- Select Title III services subcontractor.
- Obtain DOE approval if required, and award subcontract.
- Audit office of the Title III services subcontractor.
- Subcontract management and administration.
- The following scope of work will be performed by OSDF Engineering and reviewed by OSDF Construction, Health & Safety and Quality Control Operations under Control Account CECP:
 - Support procurement in preparation of prequalification criteria, preparation of list of subcontractors, preparation of RFP, evaluation of proposals, selection of subcontractor, and subcontract management and administration of Title III services.

1.2) Quantification - Selection of OSDF Title III Subcontractor

• Selection of Title III services will require 1.5 projectized OSDF engineering FTE, 0.1 FTE each for construction and Quality Control for six (6) months, and 1.5 matrixed procurement/requisition FTEs for six (6) months.

2) Task #2 - Title III Services

2.1) Plan/Scope - Title III Services

- This task includes Title III services to support OSDF borrow area development, OSDF liners, final cover, infrastructure construction, and impacted material placement. Title III services included in charge number account CAEN6 will be performed by the Title III service subcontractor and Fluor Fernald, Inc. matrix labor from Acquisition / Prime Contract Administration. Title III services included in this charge number account will be performed in the first quarter of FY2002 through January 31, 2002 and then year round beginning from the first quarter of FY2003.
- The following scope of work will be included in the Title III subcontract:
 - A full-time Certifying Engineer and a full-time Administrative Assistant.
 - Title III services as described in Plan/Scope for CAEN6 Task 1 Selection of OSDF Title III Subcontractor.
- The following scope of work will be performed by OSDF Engineering manpower and reviewed by projectized OSDF construction, Safety, and Quality Control Operations manpower included in Control Account CECP:

- Engineering oversight of Title III subcontractor and administration and management of Title III services.
- Review of CFC documents including technical specifications, construction drawings, support plans and related contract documents.
- Prepare construction borrow area management and restoration work plan and surface water and erosion control work plan.
- Prepare and review technical submittal specified in the CFC documents.
- Periodic observation of field construction activities.
- Review CQC test results and "as-built" surveys for liner system, final cover system, impacted material placement, and infrastructure construction.
- Provide procurement support to purchase construction materials, equipment, and services including geosynthetic materials, bio-intrusion barrier, and drainage layer.
- Visit GCL and GML manufacturing plants (one visit per liner and cap) to inspect materials and sample material for conformance testing.
- Prepare, review, evaluate and approve DCNs, RCIs, NCRs, and "red-line" drawings prepared by Title III services subcontractor and OSDF construction.
- Review OSDF CQA Certification Report prepared by Title III services subcontractor.
- Attend project meetings.
- Prepare Project Closeout Report.
- Prepare "as-built" construction documents.
- Review and evaluate change order and claims.
- Review clarification and interpretation prepared by the Title III services subcontractor.
- The following scope of work will be performed by matrixed Quality Control Operations:
 - Perform inspection and audit of GCL and GML manufacturing plants, including travel expenses for each audit.

Perform review of Manufacturer's Quality Conformance testing and Construction Quality Conformance testing data.

2.2) Quantification - Title III Services

- It is estimated that Title III services subcontractor will provide one (1) full-time Certifying Engineer and one (1) full-time administrative assistant under the existing contract until January 31, 2002, and from October 1, 2002 through January 29, 2010 under the new contract to be procured under Task 1 of this charge number. The new contract to be procured will also include twelve (12) visits to GCL and GML manufacturing plants between January 1, 2003 and March 31, 2009.
- This subtask will require 1.25 projectized OSDF Engineering FTEs for 9 months.
- This subtask will require 0.5 matrixed Quality Control Operations FTEs for a 3-month period for each year starting from FY2004 through FY2009. Travel expenses include twelve (12), 2-day trips to the GCL and GML manufacturing plants.

R1-F03-039

1.5.5 CAEN7 OSDF Monitoring

1) Plan/Scope OSDF Monitoring

- This charge number includes review of OSDF groundwater and leachate monitoring data provided by ARWWP surface water data in accordance with the OSDF Surface Water Management and Erosion Control Plan, and OSDF Post Closure and Inspection Plan. This monitoring data will be reviewed by projectized OSDF Engineering at the end of each quarter from October 1, 2001 to January 29, 2010.
- The following scope of work will be performed by OSDF engineering under Control Account CECP:
 - Quarterly, review data provided by ARWWP for OSDF groundwater wells and leachate generation.
 - Quarterly, review data provided by OSDF subcontractor and by OSDF Construction for the OSDF surface water management and erosion control.
 - ———— Quarterly, review monitoring data obtained under OSDF Post Closure and Inspection Plan.

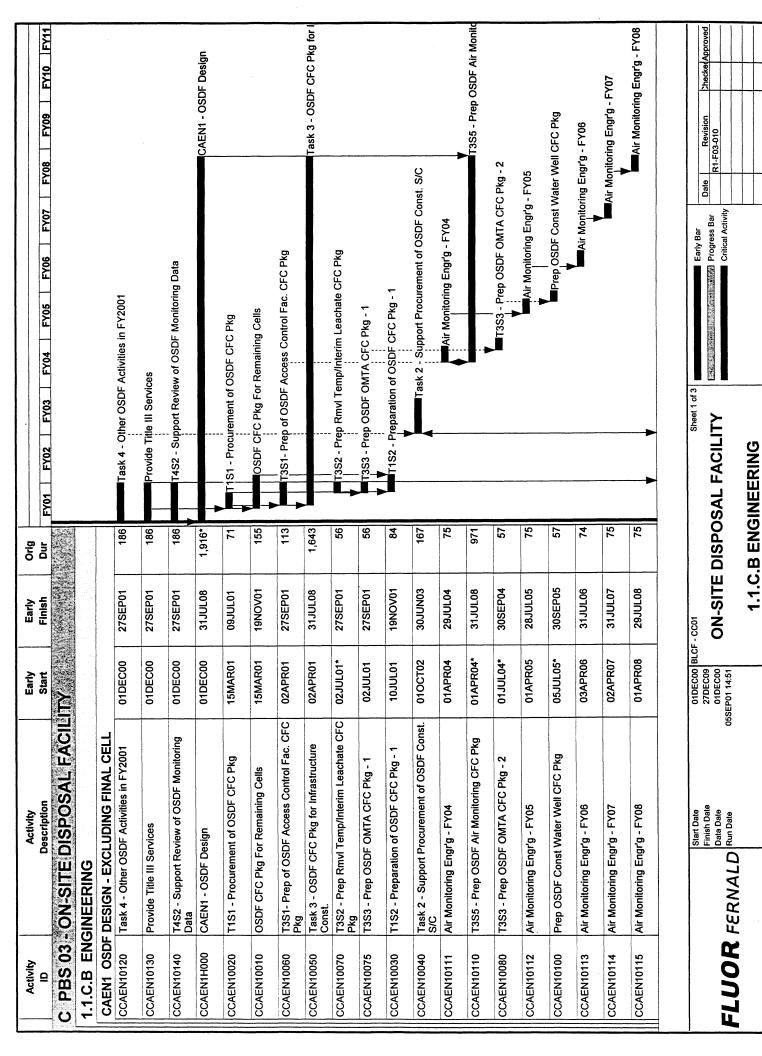
2) Quantification - OSDF Monitoring

• This charge number requires 0.1 projectized OSDF Engineering FTEs for a 3-month period for each year starting from FY2002 through FY2010.

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SECTION 2 2.0 SCHEDULE

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ON-SITE DISPOSAL FACILITY

1.1.C.B ENGINEERING

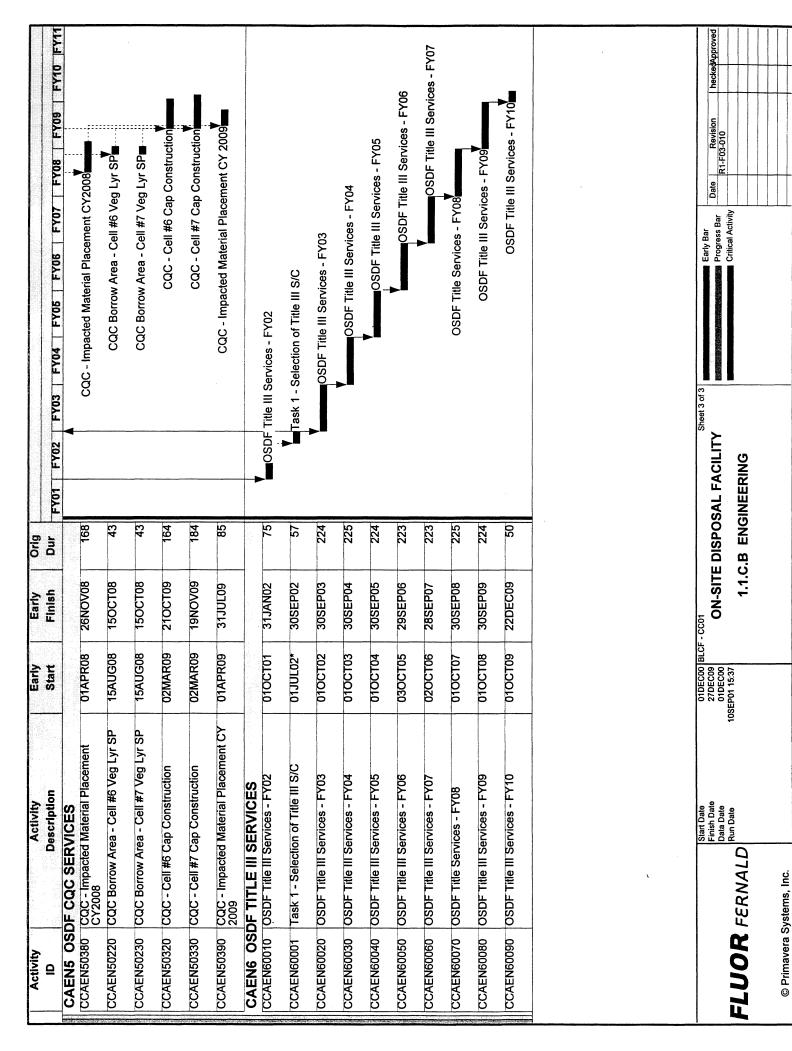
L** Progress Bar

Critical Activity

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Activity	Act	Activity	Early	Early	Orig	
D	Descr	Description	Start	Finish	Dar	FY01 FY02 FY03 FY04 FY05 FY06 FY07 FY08 FY10 FY11
ᅜ	CAENS OSDF CQC SERVICES	3				
CCAEN50040	CQC Borrow Area - Cell #4 Liner (inc ACF)	Cell #4 Liner (inc	01MAY03	27AUG03	83	CQC Borrow Area - Cell #4 Liner (inc ACF)
CCAEN50340	CQC - Impacted Material Placement CY 2004	terial Placement CY	01APR04	30NOV04	167	CQC - Impacted Material Placement CY 2004
CCAEN50240	CQC - Cell #4 Liner Construction	Construction	01APR04	30DEC04	187	CQC - Cell #4 Liner Construction
CCAEN50130	CQC Borrow Area - Cell #5 Liner	Cell #5 Liner	03MAY04	30JUL04	63	■CQC Borrow Area - Cell #5 Liner
CCAEN50160	CQC Borrow Area - Cell #2 Cap/Veg Lyr SP	Cell #2 Cap/Veg Lyr	02AUG04	29OCT04	64	■CQC Borrow Area - Cell #2 Cap/Veg Lyr SP
CCAEN50280	CQC - Cell #2 Cap Construction	Sonstruction	01MAR05	28NOV05	188	CQC - Cell #2 Cap Construction
CCAEN50350	CQC - Impacted Material Placement CY 2005	lerial Placement CY	01APR05	30NOV05	168	CQC - Impacted Material Placement CY 2005
CCAEN50250	CQC - Cell #5 Liner Construction	Construction	01APR05	03JAN06	189	CQC - Cell #5 Liner Construction
CCAEN50140	CQC Borrow Area - Cell #6 Liner	Cell #6 Liner	02MAY05	29JUL05	63	■CQC Borrow Area - Cell #6 Liner
CCAEN50170	CQC Borrow Area - Cell #3 Cap/Veg Lyr SP	Cell #3 Cap/Veg Lyr	01AUG05	31OCT05	65	▼CQC Borrow Area - Cell #3 Cap/Veg Lyr SP
CCAEN50290	CQC - Cell #3 Cap Construction	Sonstruction	01MAR06	22NOV06	186	CQC - Cell #3 Cap Construction
CCAEN50360	CQC - Impacted Material Placement CY 2006	terial Placement CY	03APR06	30NOV06	167	CQC - Impacted Material Placement CY 2006
CCAEN50260	CQC - Cell #6 Liner Construction	Construction	03APR06	29DEC06	186	CQC - Cell #6 Liner Construction
CCAEN50150	CQC Borrow Area - Cell #7 Liner	Cell #7 Liner	01MAY06	02AUG06	99	CQC Borrow Area - Cell #7 Liner
CCAEN50180	CQC Borrow Area - Cell #4 Cap/Veg Lyr SP	Cell #4 Cap/Veg Lyr	03AUG06	03NOV06	99	CQC Borrow Area - Cell #4 Cap/Veg Lyr SP
CCAEN50300	CQC - Cell #4 Cap Construction	Construction	01MAR07	16NOV07	182	CQC - Cell #4 Cap Construction
CCAEN50370	CQC - Impacted Material Placement CY 2007	terial Placement CY	02APR07	30NOV07	168	CQC - Impacted Material Placement CY 2007
CCAEN50270	CQC - Cell #7 Liner Construction	Construction	02APR07	31DEC07	187	CQC - Cell #7 Liner Construction
CCAEN50190	CQC Borrow Area - Cell #5 Cap/Veg Lyr SP	Cell #5 Cap/Veg Lyr	04MAY07	05NOV07	129	CQC Borrow Area - Cell #5 Cap/Veg Lyr SP
CCAEN50200	CQC Borrow Area - Cell #6 Cap	Cell #6 Cap	04MAY07	05NOV07	129	■■CQC Borrow Area - Cell #6 Cap
CCAEN50210	CQC Borrow Area - Cell #7 Cap	Cell #7 Cap	04MAY07	05NOV07	129	CQC Borrow Area - Cell #7 Cap
CCAEN50310	CQC - Cell #5 Cap Construction	Sonstruction	03MAR08	01DEC08	189	CQC - Cell #5 Cap Construction
		Start Date Finish Date Data Date Run Date 10S	01DEC00 BLCF - CC01 27DEC09 01DEC00 10SEP01 15:37	ON-SITE	DISPO	N-SITE DISPOSAL FACILITY Sheet 2 of 3
TIOOT FERNALD	FERNALU		44.0	7.1.0	B ENC	1.1.C.B ENGINEERING
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SECTION 2 3.0 MANPOWER PLANS

MPS # 1CB01 OSDF DESIGN

				Ŧ	FY 2001	-	Œ	FY 2002		-	FY 2003	93	١	Ŧ	FY 2004			FY 2005	02	ı	۳	FY 2006	۵	
DRIVERS	START DATE	END DATE	10T	Q1 Q2	22 Q3	9	Q1 Q2	Q2 Q3	8	ē	Q1 Q2 Q3		9	9	Q1 Q2 Q3 Q4	8	ď	Q1 Q2 Q3	8	9	۶	Q1 Q2 (Q3 Q4	
301 OSDF Summary Schedule	04/01/2004	12/23/2009													2	XX	XXX XXX XXX XXX XXX XXX XXX XXX XXX	XXX	XX	XXX	XXX	XXX	XX	×
302 OSDF CELL 1 - Cap	11/09/2000	09/28/2001		XX XXX XXX XX	XXX	XXX							-											
303 OSDF CELL 2 - Cap	03/01/2005	12/30/2005																×	×	xxx xxx x	XX			
305 OSDF CELL 3 - Cap	03/01/2006	12/29/2006																				×	XXX XXX	ŏ
306 OSDF CELL 4 - Site Prep and Liner	08/15/2003	12/30/2004											×	×	×	XX	XX XXX XXX XXX XX	J						
308 OSDF CELL 4 - Cap	03/01/2007	12/20/2007																						
309 OSDF CELL 5 - Site Prep and Liner	08/18/2004	12/30/2005														×	XX XXX XXX XXX XXX	XX	×	×	XX			
311 OSDF CELL 5 - Cap	03/03/2008	12/22/2008																						
312 OSDF CELL 6 - Site Prep and Liner	08/18/2005	12/29/2006																		×	xxx xxx xxx xxx	×	×	×
314 OSDF CELL 6 - Cap	03/02/2009	11/16/2009																						
315 OSDF Monitoring & Maintenance	10/02/2000	12/23/2009	^	XX XX	XX	XXX	XXX	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX	×	X	XX	×	×	×	XX	××	XX	X	XXX	XXX	×	X	×
317 WASTE ACCEPTANCE ORGANIZATION	10/01/2003	09/30/2009											_×	×	×	×××	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XX	×	XX	XXX	×	×	×
318 Interim Cap for Cells 2&3	11/01/2001	11/21/2001					×																	
319 OSDF CELL 7 - Liner	08/16/2006	12/31/2007																					^	×
320 OSDF CELL 7 - Cap	03/02/2009	12/23/2009																						
321 OSDF Cell Placement	10/01/2003	06/30/2009											_ <u>×</u>	×	×	×	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX	XX	××	XXX	××	X	×
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Engineering & Design Engin	Engineer Civil		3.80	0.8	8.0	_	0.1	0		-	•	0	0	0	0	0	-	0	0	•	0	0	•	0
Engineering & Design Draffe	Drafter/CAD Operator		0.40	0	0.1	0 0.1	0.1	0		·	0	0	0	0	0	0.1	-	0	0	0	•	0	•	•
Project Management Tech/	Tech/Program Support Mgr.		0.60	•		0.1	0.1	0		-	0	0	0	0	0	0	-	0	0.2	0.2	0	0	0	0
Engineering & Design Engin	Engineer Electrical		0.10	0	0	0	0	0	0	<u> </u>	0	0	0	0	0	0.1	-	0	0	•	0	0	0	0
Project Management Tech/	Tech/Program Support Rep.	<u>م</u>	0.20	0	•	0	0	0		·	0	0	0	0	0	0	-	0	0.2	0	0	0	0	0
Project Management Projec	Project Mgr.		3.80	-	9.0	_	0	0		<u> </u>	0	0	0	0	0	0	-	0	0	•	0	0	0	0
Engineering & Design Engineer	neer		8.40	2.5 1	6.1	2 2	•	0		-	0	0	0	0	0	0	-	0	0	0	0	0	•	0
	Shee	Sheet Totals:	17.60	4.40 3.60	6.10	4.30	0.40 0.00	0.00 0.00	0.00		0.00 0.00	0.00	0.00	0.00	0.00.0	0.20 0.00	00.00	00.00	0.40	0.20	0:00	0.00	0.00	0.00

MPS # 1CB01 OSDF DESIGN

							FY 2011	١
DRIVERS	START DATE	END DATE	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3	4
301 OSDF Summary Schedule	04/01/2004	12/23/2009	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX XXX XXX	XXX XXX XXX	xxx		
302 OSDF CELL 1 - Cap	11/09/2000	09/28/2001						
303 OSDF CELL 2 - Cap	03/01/2005	12/30/2005						
305 OSDF CELL 3 - Cap	03/01/2006	12/29/2006	xxx					
306 OSDF CELL 4 - Site Prep and Liner	08/15/2003	12/30/2004						
308 OSDF CELL 4 - Cap	03/01/2007	12/20/2007	xxx xxx x	XXX				
309 OSDF CELL 5 - Site Prep and Liner	08/18/2004	12/30/2005						
311 OSDF CELL 5 - Cap	03/03/2008	12/22/2008		xxx xxx x	xxx			
312 OSDF CELL 6 - Site Prep and Liner	08/18/2005	12/29/2006	xxx					
314 OSDF CELL 6 - Cap	03/02/2009	11/16/2009			xx xxx xxx	×		
315 OSDF Monitoring & Maintenance	10/02/2000	12/23/2009	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX XXX XXX XXX	XXX XXX XXX XXX	xxx		
317 WASTE ACCEPTANCE ORGANIZATION	10/01/2003	09/30/2009	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX XXX XXX	XXX XXX XXX XXX	,		
318 Interim Cap for Cells 2&3	11/01/2001	11/21/2001						
319 OSDF CELL 7 - Liner	08/16/2006	12/31/2007	XXX XXX XXX XXX	XXX				
320 OSDF CELL 7 - Cap	03/02/2009	12/23/2009			XXX XXX X	xxx		
321 OSDF Cell Placement	10/01/2003	06/30/2009	xxx xxx xxx xxx xxx xxx xxx xxx xxx	XXX XXX XXX	XXX XXX XXX			
Engineering & Design	Engineer Manager		0 0 0	0 0 0	0 0 0 0	0 0 0	0	0
Engineering & Design Engineer Civil	er Civil		0 0 0	0 0 0	0 0 0	0 0 0	0 0	0
Engineering & Design Drafter/	Drafter/CAD Operator		0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0
Project Management Tech/Pr	Tech/Program Support Mgr.	Agr.	0 0 0	0 0	0 0 0	0 0	0	0
Engineering & Design Enginee	Engineer Electrical		0 0 0	0 0 0	0 0	0	0	0
Project Management Tech/Pr	Tech/Program Support Rep.	Rep.	0 0 0	0 0 0	0 0 0	0 0 0	0	•
Project Management Project Mgr.	Mgr.		0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0
Engineering & Design	e		0 0 0	0 0 0 0	0 0 0 0	0 0 0	0 0 0	0
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MPS # 1CB02 OSDF CQC SERVICES

				FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
DRIVERS	START DATE	END DATE	T0T	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4			
301 OSDF Summary Schedule	04/01/2004	12/23/2009					XXX XXX	*** *** *** *** *** *** *** *** ***	XXX XXX XXX
302 OSDF CELL 1 - Cap	11/09/2000	09/28/2001		XX XXX XXX XX					****
303 OSDF CELL 2 - Cap	03/01/2005	12/30/2005						XXX XXX X	×××
305 OSDF CELL 3 - Cap	03/01/2006	12/29/2006	•						XXX XXX X
306 OSDF CELL 4 - Site Prep and Liner	08/15/2003	12/30/2004				×	XXX XXX XXX XXX XX	XXX	
308 OSDF CELL 4 - Cap	03/01/2007	12/20/2007							
309 OSDF CELL 5 - Site Prep and Liner	08/18/2004	12/30/2005					×	XXX XXX XXX XXX XXX XX	XXX
311 OSDF CELL 5 - Cap	03/03/2008	12/22/2008							
312 OSDF CELL 6 - Site Prep and Liner	08/18/2005	12/29/2006						XX	XXX XXX XXX XXX XX
314 OSDF CELL 6 - Cap	03/02/2009	11/16/2009							
315 OSDF Monitoring & Maintenance	10/02/2000	12/23/2009	×	XX XXX XXX XX	XXX XXX XXX XXX	XXX XXX XXX XXX		*** *** *** *** *** *** *** *** *** **	XXX XXX XXX XXX
317 WASTE ACCEPTANCE ORGANIZATION	10/01/2003	09/30/2009					XXX XXX XXX XXX	*** *** *** *** *** *** *** *** ***	XXX XXX XXX XXX
318 Interim Cap for Cells 2&3	11/01/2001	11/21/2001			×				
319 OSDF CELL 7 - Liner	08/16/2006	12/31/2007							*
320 OSDF CELL 7 - Cap	03/02/2009	12/23/2009							E
321 OSDF Cell Placement	10/01/2003	06/30/2009					XXX XXX XXX	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX XXX XXX
				-	-				
QA/QC QA Engineer	ıgineer		0.80	0 0 0.1	0.1 0 0 0	0 0 0	0 0.1 0 0	0 0.1 0 0	0 0.1 0 0
	Shee	Sheet Totals:	0.80	0.00 0.00 0.00 0.10	0.10 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.10 0.00 0.00	0.00 0.10 0.00 0.00	0.00 0.10 0.00 0.00

MPS # 1CB02 OSDF CQC SERVICES

			FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
DRIVERS	START DATE	END DATE	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	
301 OSDF Summary Schedule	04/01/2004	12/23/2009	XXX XXX XXX	xxx xxx xxx	*** *** *** *** *** *** *** *** *** **	xxx		
302 OSDF CELL 1 - Cap	11/09/2000	09/28/2001						
303 OSDF CELL 2 - Cap	03/01/2005	12/30/2005						
305 OSDF CELL 3 - Cap	03/01/2006	12/29/2006	xxx					
306 OSDF CELL 4 - Site Prep and Liner	08/15/2003	12/30/2004						
308 OSDF CELL 4 - Cap	03/01/2007	12/20/2007	XXX XXX X	xxx				
309 OSDF CELL 5 - Site Prep and Liner	08/18/2004	12/30/2005						
311 OSDF CELL 5 - Cap	03/03/2008	12/22/2008		XXX XXX X	XXX			
312 OSDF CELL 6 - Site Prep and Liner	08/18/2005	12/29/2006	XXX					
314 OSDF CELL 6 - Cap	03/02/2009	11/16/2009			XX XXX X	×		
315 OSDF Monitoring & Maintenance	10/02/2000	12/23/2009	XXX XXX XXX	XXX XXX XXX XXX	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX		
317 WASTE ACCEPTANCE ORGANIZATION	10/01/2003	09/30/2009	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX XXX XXX XXX	XXX XXX XXX XXX			
318 Interim Cap for Cells 2&3	11/01/2001	11/21/2001						
319 OSDF CELL 7 - Liner	08/16/2006	12/31/2007	XXX XXX XXX XXX	XXX				
320 OSDF CELL 7 - Cap	03/02/2009	12/23/2009			XXX XXX X	XXX		
321 OSDF Cell Placement	10/01/2003	06/30/2009	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	xxx xxx xxx xxx	xxx xxx xxx			
QA/QC QA Engineer	gineer		0 0.1	0 0.1	0 0.1	0 0 0	0	

MPS # 1CB03 OSDF TITLE III SERVICES

SOLVIOR	4	4	Š	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
DRIVERS	SIAKIDAIE	END DATE	₫	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4
301 OSDF Summary Schedule	04/01/2004	12/23/2009					XXX XXX	*** *** *** *** *** *** ***	*** *** ***
302 OSDF CELL 1 - Cap	11/09/2000	09/28/2001		XX XXX XXX XX					
303 OSDF CELL 2 - Cap	03/01/2005	12/30/2005						XXX XXX X	XXX
305 OSDF CELL 3 - Cap	03/01/2006	12/29/2006							XXX XXX X
306 OSDF CELL 4 - Site Prep and Liner	08/15/2003	12/30/2004				×	XXX XXX XXX XXX XXX XX	XXX	
308 OSDF CELL 4 - Cap	03/01/2007	12/20/2007							
309 OSDF CELL 5 - Site Prep and Liner	08/18/2004	12/30/2005					×	XXX XXX XXX XXX XXX XX	XXX
311 OSDF CELL 5 - Cap	03/03/2008	12/22/2008							
312 OSDF CELL 6 - Site Prep and Liner	08/18/2005	12/29/2006						××	XXX XXX XXX XXX XX
314 OSDF CELL 6 - Cap	03/02/2009	11/16/2009							
315 OSDF Monitoring & Maintenance	10/02/2000	12/23/2009	^	XXX XXX XXX	XXX XXX XXX XXX	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX XXX XXX XXX	XXX XXX XXX	XXX XXX XXX XXX
317 WASTE ACCEPTANCE ORGANIZATION	10/01/2003	09/30/2009		-			*** *** *** *** *** *** *** *** *** ***	XXX XXX XXX XXX	XXX XXX XXX XXX
318 Interim Cap for Cells 2&3	11/01/2001	11/21/2001			×				
319 OSDF CELL 7 - Liner	08/16/2006	12/31/2007							XX
320 OSDF CELL 7 - Cap	03/02/2009	12/23/2009							•
321 OSDF Cell Placement	10/01/2003	06/30/2009					XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	xxx xxx xxx	XXX XXX XXX XXX
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MPS # 1CB03 OSDF TITLE III SERVICES

			FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
DRIVERS	START DATE	END DATE	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	5
301 OSDF Summary Schedule	04/01/2004	12/23/2009	XXX XXX XXX	XXX XXX XXX XXX	***	xxx		ı
302 OSDF CELL 1 - Cap	11/09/2000	09/28/2001						
303 OSDF CELL 2 - Cap	03/01/2005	12/30/2005						
305 OSDF CELL 3 - Cap	03/01/2006	12/29/2006	xxx					
306 OSDF CELL 4 - Site Prep and Liner	08/15/2003	12/30/2004						
308 OSDF CELL 4 - Cap	03/01/2007	12/20/2007	XXX XXX X	xxx				
309 OSDF CELL 5 - Site Prep and Liner	08/18/2004	12/30/2005						
311 OSDF CELL 5 - Cap	03/03/2008	12/22/2008		XXX XXX X	xxx			
312 OSDF CELL 6 - Site Prep and Liner	08/18/2005	12/29/2006	xxx					
314 OSDF CELL 6 - Cap	03/02/2009	11/16/2009			xx xxx xxx x	××		
315 OSDF Monitoring & Maintenance	10/02/2000	12/23/2009	XXX XXX XXX XXX	XXX XXX XXX	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX		
317 WASTE ACCEPTANCE ORGANIZATION	10/01/2003	09/30/2009	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX XXX XXX XXX	XXX XXX XXX XXX			
318 Interim Cap for Cells 2&3	11/01/2001	11/21/2001						
319 OSDF CELL 7 - Liner	08/16/2006	12/31/2007	XXX XXX XXX XXX	xxx				
320 OSDF CELL 7 - Cap	03/02/2009	12/23/2009			XXX XXX X	xxx		
321 OSDF Cell Placement	10/01/2003	06/30/2009	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX XXX XXX XXX	XXX XXX XXX			
OA/OC QA Engineer	aineer		0 0.5 0	0 0.5 0	0 0.5 0 0	0 0	0 0 0	

Sheet Totals:

SECTION 2

4.0 ESTIMATE

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CAEN1 OSDF DESIGN

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Page 1 of 3

9:41 AM	05-Sep-01 JD Chiou JD Chiou W. F. FICK 2001-2008								
14.0	DATE: 05-Se PROJECT MGR: JD Chiou CAM: JD Chiou PREPARED BY: W. F. FICK FISCAL YEAR: 2001-2008		Oct 09- Sep 10 0.0 173.5 0 6,100		Oct 09- Sep 10 0.0 1,394.8 76,484		Oct 09- Sep 10 0.0 44.0 0 2,915		Oct 09- Sep 10 0.0 2,922.7 0
			Oct 08- Sep 09- 0.0 173.5		Oct 08- Sep 09 S 0.0 1,394.8 1		Oct 08- Oct 08- Sep 09 S 0.0 0.0 44.0 0.0 2.915		Oct 08- Sep 09 S 0.0 0.0 2.922.7 2.200,965 20
		·	Oct 07- Sep 08 9.0 173.5 429 6,100		Oct 07- Sep 08 5.0 1,394.8 76,484		Oct 07- Sep 08 5.0 44.0 400 2,915		Oct 07- Sep 08 0.0 2,922.7 0
			Oct 06- Sep 07 9.0 164.5 407 5,671		Oct 06- Sep 07 5.0 1,389.8 76,069		Oct 06- Sep 07 5.0 39.0 379 2,515		Oct 06- Sep 07 0.0 2,922.7 0
2	SHEET IATING RS)		Oct 05- Sep 06 9.0 155.4 375 5,264		Oct 05- Sep 06 5.0 1,384.8 363 75,675		Oct 05- Sep 06 5.0 34.0 349 2,136		Oct 05- Sep 06 0.0 2,922.7 0
Fernala	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	LABOR	Oct 04- Sep 05 18.0 146.4 703 4,889	LABOR	Oct 04- Sep 05 9.0 1,379.8 612 75,313	LABOR	Oct 04- Sep 05 9.0 29.0 589 1,787	LABOR	Oct 04- Sep 05 0.0 2,922.7 200,965
Flior	ESTIMATE S FOR ACTIVII (1 FTE EC		Oct 03- Sep 04 18.0 128.4 663 4,186		Oct 03- Sep 04 9.0 1,370.8 578 74,701		Oct 03- Sep 04 9.0 20.0 556 1,198		Oct 03- Sep 04 0.0 2,922.7 0
-	•	EOC: s: SAL	Oct 02- Sep 03 22.0 110.4 766 3,523	EOC: s: SAL	Oct 02- Sep 03 11.0 1,361.8 666 74,123	EOC: s: SAL	Oct 02- Sep 03 11.0 11.0 641	EOC:	Oct 02- Sep 03 0.0 2,922.7 0 200,965
·		AATOR	Oct 01- Sep 02 0.0 88.4 0	Class:	Oct 01- Sep 02 0.0 1,350.8 0	SAL Class:	Oct 01- Sep 02 0.0 0.0 0	Class:	Oct 01- Sep 02 0.0 2,922.7 0 200,965
		DRAFTER/CAD OPERATOR Overtime: FY01	Oct 00- Sep 01 88.4 88.4 2,757 2,757	ENGINEER CIVIL Overtime: FY01	Oct 00- Sep 01 1,350.8 1,350.8 73,457	ENGINEER ELECTRICAL Overtime:	Oct 00- Sep 01 0.0 0.0 0.0	ENGINEER Overtime: FY01	Oct 00- Sep 01 2,922.7 2,922.7 200,965 200,965
OHENDS	1.1.C.B CAEN CAEN1 F03-008, F03-010	DRFCAD		ENGCVL		ENGELE 949		ENGINR	
PRS	ACCT: RGE NO: MENT #:	Resource: Res Dept:	Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Resource: Res Dept:	Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Resource: Res Dept:	Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Resource: Res Dept:	Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:

PBS: OHFN03			<u>.</u>	uor F	Fernald,	, Inc.					DATE: 05-Sep-01
WBS: 1.1.C.B CTRL ACCT: CAEN CHARGE NO: CAEN1 COMMENT #: F03-008, F03-010				ESTIMATE S FOR ACTIVII (1 FTE EC	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	HEET ATING (S)					PROJECT MGR: JD Chiou CAM: JD Chiou PREPARED BY: W. F. FICK FISCAL YEAR: 2001-2008
	ENGINEERING MGR Overtime: FY01	5	EOC: Class: SAL		LABOR						
	Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10	
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	88.3 88.3 5,280 5,280	0.0 88.3 0 5,280	11.0 99.3 733 6,013	9.0 108.3 635 6,648	9.0 117.3 673 7,322	5.0 122.3 399 7,720	5.0 127.3 433 8,153	5.0 132.3 456 8,610	0.0 132.3 0 8,610	0.0 132.3 0 8,610	
Resource: PARSONS Res Dept: 949	PARSONS Overtime: FY01	5	EOC: Class: SUB		SUBCONTRACTORS	6					
Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:	Oct 00- Sep 01 80,997.0 80,997 80,997	Oct 01- Sep 02 0.0 80,997.0 0	Oct 02- Sep 03 0.0 80,997.0 0	Oct 03- Sep 04 0.0 80,997.0 0	Oct 04- Sep 05 0.0 80,997.0 0	Oct 05- Sep 06 0.0 80,997.0 0	Oct 06- Sep 07 0.0 80,997.0 80,997	Oct 07- Sep 08 0.0 80,997.0 0	Oct 08- Sep 09 0.0 80,997.0 0	Oct 09- Sep 10 0.0 80,997.0 0	
Resource: PRJMGR Res Dept:	PROJECT MANAGER Overtime: FY01		EOC: Class: SAL		LABOR						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Oct 00- Sep 01 1,363.4 1,363.4 121,561	Oct 01- Sep 02 0.0 1,363.4 0	Oct 02- Sep 03 0.0 1,363.4 0	Oct 03- Sep 04 0.0 1,363.4 0	Oct 04- Sep 05 0.0 1,363.4	Oct 05- Sep 06 0.0 1,363.4	Oct 06- Sep 07 0.0 1,363.4	Oct 07- Sep 08 0.0 1,363.4 0	Oct 08- Sep 09 0.0 1,363.4 0 121,561	Oct 09- Sep 10 0.0 1,363.4	
Resource: SERVSUB Res Dept: 949	SUBS Overtime: GEO	5	EOC: Class: SUB		SUBCONTRACTORS						
Yr Units: Cum Units: Yr Total Cost:	Oct 00- Sep 01 1,292,111.7 1,292,111.7	Oct 01- Sep 02 301,075.3 1,593,187.0	Oct 02- Sep 03 0.0 1,593,187.0	Oct 03- Sep 04 0.0 1,593,187.0	Oct 04- Sep 05 0.0 1,593,187.0	Oct 05- Sep 06 0.0 1,593,187.0	Oct 06- Sep 07 0.0 1,593,187.0	Oct 07- Sep 08 0.0 1,593,187.0	Oct 08- Sep 09 0.0 1,593,187.0	Oct 09- Sep 10 0.0 1,593,187.0	

INCLUDES ESCALATION COSTS

Page 3 of 3

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PBS:	OHFN03				loor F	Fluor Fernald, Inc	, Inc.					DATE: 05-Sep-01
WBS: CTRL ACCT: CHARGE NO: COMMENT #:	1.1.C.B CAEN CAEN1 F03-008, F03-010				ESTIMATE S FOR ACTIVII (1 FTE EQ	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	SHEET ATING RS)					ECT MGR: JD CF JD CF ARED BY: W. F.
Resource: Res Dept:	TPSMGR	TECH/PROG SUPT MGR Overtime: FY01	MGR 01 Class:	SS: SAL		LABOR						
		Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10	
Yr Hours: Cum Hours:		44.1	0.0 44 .1	57.0 101.1	47.0 148.1	47.0	25.0	25.0 245.1	25.0 270.1	0.0	0.0	
Yr Total Cost: Cum Total Cost:	;;	2,754 2,754	2,754	3,967 6,721	3,465 10,186	3,671	2,086 15,943	2,260 18,203	2,382	20,585	20,585	
Resource: Res Dept:	TPSREP 949	TECH/PROG SUPT REP Overlime:	REP Class:	EOC: ss: SAL		LABOR						
. House		Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10	
Cum Hours: Yr Total Cost		0.0	0.00	23.0 1333	19.0 42.0 1.166	19.0 61.0	71.0 71.0	10.0 81.0	10.0 91.0	0.0 91.0	0.0 91.0	
Cum Total Cost:	#	0		1,332	2,499	3,734	4,428	5,181	793 5,974	5,974	5,974	
GRAND TOTALS:	TS:											
) 		Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10	
Cum Hours: Yr Total Cost:		5,857.7 1,779,882	5,857.7 309,204	135.0 5,992.7 8,106	6,103.7 7,064	111.0 6,214.7 7,483	59.0 6,273.7 4,265	59.0 6,332.7 4.626	59.0 6,391.7 4.876	0.0 6,391.7 0	0.0 6,391.7 0	
Cum Total Cost:	ij.	1,779,882	2,089,086	2,097,192	2,104,256	2,111,740	2,116,005	2,120,631	2,125,507	2,125,507	2,125,507	
	10	000								ĵ		

CONTROL TEAM

CAM

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CAEN5 OSDF CQC SERVICES

.000	GOLATILO					0 0000							
783.	CHENGS					ricor rernala,	ı, ınc.					DATE:	05-Sep-01
WBS: CTRL ACCT: CHARGE NO: COMMENT #:	1.1.C.B CAEN : CAEN5 F03-010				ESTIMATE FOR ACTIV (1 FTE E	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	SHEET AATING IRS)					PROJECT MGR. JD Chiou CAM: JD Chiou PREPARED BY: W. F. Fick FISCAL VEAD: 2003 2040	R: JD Chiou JD Chiou f: W. F. Fick
Resource: Res Dept:	QACENG 949	QA ENGINEER Overtime:	0	EOC Class: SAL		LABOR							0107-0007
:		Oct 00- 01-Sep	Oct 01- 02-Sep	Oct 02- 03-Sep	Oct 03- 04-Sep	Oct 04- 05-Sep	Oct 05- 06-Sep	Oct 06- 07-Sep	Oct 07- 08-Sep	Oct 08-	Oct 09- 10-Sen		
Yr Hours: Cum Hours:		0 0	0 0	42	32.7	44	43.2	43.9	44.6	49.4	2		
Yr Total Cost:		00	0	42 2,152	1,772	118./ 2,529	161.8 2,650	205.7 2,921	250.3 3,130	3.849	304.7		
Cum Total Cost:);	0	0	2,152	3,924	6,453	9,103	12,024	15,155	19,004	19,405		
Resource: Res Dept:	SERVSUB 949	SUBS Overtime:	ō	EOC: Class: SUB		SUBCONTRACTORS	S		-				
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-		
Yr Units:		0	0	202.110.00	392.577.70	03-3ep	06-500 750 005 90	07-500 802-204	08-Sep	09-Sep	10-Sep		
Cum Units: Yr Total Cost:		0 0	00	202,110.00	594,687.70 425,657	1,235,174.80	1,985,180.70 860,215	2,787,474.30 946,872	3,300,572.60	3,788,039.30 609.163	49,703.60 3,837,745.00 63.916		
Cum Total Cost: GRAND TOTALS:	rs: LS:	0	0	213,171	638,828	1,352,728	2,212,944	3,159,815	3,782,938	4,392,102	4,456,018		
Yr Hours: Cum Hours:	·	Oct 00-	Oct 01- 02-Sep	Oct 02- 03-Sep 42	Oct 03- 04-Sep 32.7	Oct 04- 05-Sep 44	Oct 05- 06-Sep 43.2	Oct 06- 07-Sep 43.9	Oct 07- 08-Sep 44.6	Oct 08- 09-Sep	Oct 09- 10-Sep 5		
Yr Total Cost: Cum Total Cost:	ŧ	000	000	215,323 215,323 215,323	74.7 427,429 642,752	716,429 716,429 1,359,181	161.8 862,866 2,222,047	205.7 949,793 3,171,840	250.3 626,253 3,798,093	299.7 613,012 4,411,105	304.7 64,317 4,475,422		
САМ	7-19	901:			CONTROL TEAM	EAW	The state of the s						

CAEN6 OSDF TITLE III SERVICES

Page 1 of 1													09/07/2001
PBS:	OHFN03				Fluor	Fernald, Inc.	d, Inc.					DATE:	9:43 AM 05-Sep-01
WBS: CTRL ACCT: CHARGE NO: COMMENT #:	1.1.C.B CAEN CAEN6 F03-010				ESTIMATE FOR ACTII (1 FTE I	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	KSHEET IMATING JURS)				_ 0 4 4	PROJECT MGR: JD Chiou CAM: JD Chiou PREPARED BY: W. F. Fick FISCAL YEAR: 2003-2010	JD Chiou JD Chiou W. F. Fick 2003-2010
Resource: Res Dept:	QACENG 949	QA ENGINEER Overtime:	5	EO . SA	EOC: L SAL	LABOR							
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	÷	Oct 00- 01-Sep 0 0 0	Oct 01- 02-Sep 0	Oct 02- 03-Sep 0 0	Oct 03- 04-Sep 221.5 221.5 12,019	Oct 04- 05-Sep 217.5 439 12,502	Oct 05- 06-Sep 217.5 656.5	Oct 06- 07-Sep 217.5 874 14,480	Oct 07- 08-Sep 218 1,092.00	Oct 08- 09-Sep 221.5 1,313.50	Oct 09- 10-Sep 0 1,313.50		
Resource: Res Dept:	SERVSUB 949	SUBS Overtime:		EOC: SUB		SUBCONTRACTORS		00,70		64,923	04,923		
Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:	נג	Oct 00- 01-Sep 0 0 0	Oct 01- 02-Sep 141,900.00 141,900.00 145,731	Oct 02- 03-Sep 310,880.00 452,780.00 327,894 473,625	Oct 03- 04-Sep 342,760.00 795,540.00 371,641 845,267	Oct 04- 05-Sep 374,380.00 1,169,900.00 417,269 1,262,536	Oct 05- 06-Sep 407,240.00 1,577,140.00 467,082 1,729,618	Oct 06- 07-Sep 407,240.00 1,984,380.10 480,627 2,210,245	Oct 07- 08-Sep 392,160.00 2,376,540.10 476,252 2,686,497	Oct 08- 09-Sep 351,560.00 2,728,100.10 439,327 3,125,824	Oct 09- 10-Sep 142,340.00 2,870,440.10 183,034 3,308,858		
GRAND TOTALS: Yr Hours: Cum Hours: Cum Total Cost: Cum Total Cost:	.	Oct 00- 01-Sep 0	Oct 01- 02-Sep 0 0 145,731	Oct 02- 03-Sep 0 0 327,894	Oct 03- 04-Sep 221.5 221.5 38,660	Oct 04- 05-Sep 217.5 439 429,771	Oct 05- 06-Sep 217.5 656.5 480,439	Oct 06- 07-Sep 217.5 874 495,107	Oct 07- 08-Sep 218 1,092.00	Oct 08- 09-Sep 221-5 1,313-50 456,597	Oct 09- 10-Sep 0 1,313.50		
CAM	1	30%	27.00	1,025	902',60	1,287,057	CONTROL TEAM	2,262,603	2,754,150	3,210,747	3,393,781		

INCLUDES ESCALATION COSTS

SECTION 2 5.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: OSDF Engineering		PBS Number: 03			Total Baseline Dollars (Minimum Case):	rs (Minimum Case	ـــا	\$9,994,710		
Evaluator: Wolinsky		WBS Number 1.1.C.B								
CAM: J.D. Chiou	Date: 05/01/01	Control Account Number:	CAEN							
Project Task	Risk and/or Opportunity	Potential Impact	Internal	Impact	Risk Impact R		Risk	Probable	Risk	Risk
			ernal /er	шn		Frobability %	Frobability Level	Cost \$ (Likeliest Case)	Value	riandung Strategy
Charge No. CAEN1, OSDF									*	
Procurement of OSDF CFC Package Engineering Services Subcontractor	Extension of current GeoSyntec Contract incorporating this additional work is more expensive than anticipated	Additional engineering manhours	Internal	\$300,000,000	2	50	3	\$150,000.00	2	Accept
Preparation of OSDF CFC Package for cell liners and final cover systems	Unidentified AE scope adders results in doubling the projected cost	Twice the cost due to doubling the engineering manhours	Internal	\$800,000.00	2	90	E	\$400,000.00		2 Accept
Preparation of OSDF Access Control Facility CFC Package	Land use committee Redo the conce doesn't approve currently and preliminary proposed location requiring using in-house redesign	Redo the conceptual and preliminary designs using in-house resources	Internal	\$10,000.00	-	20	2	\$2,000.00		Accept
Preparation of OSDF Construction Water Well CFC Package	Qualified matrixed personnel not available when needed	Delay of installation of water well by one month	Internal	\$5,000.00	-	40	E	\$2,000.00		2 Accept
Charge No. CAENS, OSDE COC Services				i d						The state of the s
Provide CQC Services - General	Period of performance Twelve-month OSD must be extended due to a schedule extension 12-month delay in site with attendant critical path work affecting additional costs OSDF	Twelve-month OSDF schedule extension with attendant additional costs	Internal	\$300,000.00	2	50	n	1\$		2 Accept
Provide CQC Services - General	Adequate number of qualified technicians not available on-site when needed over a one-month period	Increase overtime for remaining staff to provide necessary tests until additional trained staff is available	Internal	\$20,000.00	-	40	R	\$8,000.00		Accept
Charge No. CAEN6, OSDF.				基準系列	The same	17/12	September 1	-ticage (Co	2.00	
Provide Title III Services for Borrow Area Development	Not enough clay for liner and cap from brown till layer	Design Test Pad and Grading Plan and oversee construction/testing work by others	Internal	\$500,000.00	2	40	r)	\$200,000.00	2	Accept
Provide Title III Services for OSDF Liners and Final Covers	Cell #7 material volumes are greater than anticipated requiring a larger Final Cover	Acquire an A/E and provide design of a larger final cover system	Internal	\$300,000.00	2	50	4	\$150,000.00		3 Accept

Risk/Opportunity Identification and Analysis Form

	Risk Handling Strategy	2 Accept	2 Accept		Accept
	Risk Ri Critical H. Value Si				
\$9,994,710	Probable Cost \$ (Likeliest Case)	\$75,000.00	\$150,000.00	\$1,287,000.00	\$5,000.00
)):	Risk Probability Level	7	E .	Total:	2
Total Baseline Dollars (Minimum Case):	Risk Probability %	15	50		10
Total Baseline Doll	Risk Impact Level	2	2		
	Impact Cost \$ (Maximum Case)	\$500,000.00	\$300,000.00	00.000;3:03:	\$50,000.00
	CAEN Internal Or External Driver	Internal	Internal	Total:	External
PBS Number: 03 WBS Number 1.1.C.B	Control Account Number: Potential Impact	Acquire an A/E and provide design topsoil/vegatative layer & rock: remove, stockpile, repair, replace, revegatate	Twelve-month OSDF schedule extension with attendant additional costs		Acquire and A/E and provide design to Build/Renove/Reinstall Final Cover
	Date: 05/01/01 Risk and/or Opportunity	Failure of geosynthetic material in final cover system	Period of performance Twelve-month OSD must be extended due to a schedule extension 12-month delay in site with attendant critical path work affecting additional costs OSDF	NONE	a anded ell
Project: OSDF Engineering Evaluator: Wolinsky	CAM: J.D.Chlou Project Task	Provide Title III Services for OSDF Liners and Final Covers	Provide Title III Services for OSDF Liners and Final Covers	Cherge, No. CAENT, OSDE NONE Monitoring 15	Charge No. CAENG Provide Title III Services Regulators require for OSDF Liners and Final Permanent Cap be Covers

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WBS DICTIONARY CONTROL ACCOUNT/CHARGE NUMBER

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U.S. DEPARTMENT OF ENERGY WORK BREAKDOWN STRUCTURE DICTIONARY PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
AC24-010H20115		30
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.c.c	INFRASTRUCTURE	
7 APPROVED CP NO.		8. DATE OF CHANGES
NEW PER CP# FY01-0115-0003-00		12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCL/ACA	EW05H3030	

11. ELEMENT TASK DESCRIPTION

a. **ELEMENTS OF COST:**

Labor Material Subcontractors ODCs

b. TECHNICAL CONTENT:

Subcontractor services, support services, labor, material and equipment utilized by the FEMP for the OSDF Infrastructure Construction.

c. SCOPE OF WORK:

The scope of this WBS Element is further defined in the following control accounts:

Control Account CBSP

- Expansion of the On-Site Disposal Facility Material Transfer Area (OMTA)
- Construction of a new construction laydown area
- Relocation of the existing OSDF access control facility
- Installation of a new construction break trailer
- Relocation of the equipment wash facility
- Purchase/lease and installation of an additional office and lab trailer for the CQC consultant
- Removal of the temporary and interim leachate lines
- Drilling and development of a construction water well
- Extension of construction water supply piping
- Relocation of the perimeter OSDF air monitors
- Subtasks of all of these activities these activities will include fencing, ditches, construction of access roads, construction of parking areas, stormwater management and erosion control, dewatering as required and dust control.

U.S. DEPARTMENT OF ENERGY WORK BREAKDOWN STRUCTURE DICTIONARY PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
AC24-010H20115		30
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.C.C	INFRASTRUCTURE	
7. APPROVED CP NO.		8. DATE OF CHANGES
NEW PER CP# FY01-0115-0003-00	,	12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCL/ACA	EW05H3030	
11. ELEMENT TASK DESCRIPTION	·	

Control Account CLTS

- Construction of the Enhanced Permanent Leachate Transmission System (EPLTS). Covers valve houses 1 through 6.

WORK SPECIFICALLY EXCLUDED

- Air monitoring of the OSDF during the project shutdown is budgeted and done by Environmental Monitoring
- Monitoring of leachate is the responsibility of Aquifer
- OSDF is not responsible for Stewardship activities during project shut down
- Treatment of stormwater
- Final restoration activities
- Placement of impacted material is budgeted in control account CCPL, control and management of OSDF facilities is budgeted in control account CDG1
- Staff labor charged to control account CECP
- Construction of the Enhanced Permanent Leachate Transmission System, Phase II, performed by the Aquifer project. (valve house #7)
- Monitoring wells
- Centralized services provided by other PBSs

WORK SCOPE DEFINITION (Control Account)					
1. PROJECT TITLE	2. DATE				
FEMP (DEFENSE)	09/05/2001	Page 1			
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME				
1.1.C.C	INFRASTRUCTURE				
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER			
49	JD CHIOU / 648-3726	JD CHIOU			
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE				
EW05H3030	ON-SITE DISPOSAL FACILITY				
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW	11. ESTIMATED START / COMPLETION DATE				
NEW PER CP# FY01-0115-0003-00)	4/03 - 6/09			
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)				
CBSP	OSDF INFRASTRUCTURE CONSTRUCTION				

a. ELEMENTS OF COST:

Labor Materials Subcontractors

b. TECHNICAL CONTENT:

Subcontractor services, support services, labor, material and equipment utilized by the FEMP for the OSDF infrastructure construction.

c. SCOPE OF WORK:

The scope of this control account is further defined in charge number CBSP1, which includes the following:

Expansion of the OMTA

Construction of a new construction laydown area

Relocation of the existing OSDF access control facility

Installation of a new construction break trailer

Relocation of the equipment wash facility

purchase/lease and installation of an additional office and lab trailer for the CQC consultant

Removal of the temporary and interim leachate lines

WORK SCOPE DEFINITION (Control Account)					
1. PROJECT TITLE	·	2. DATE			
FEMP (DEFENSE)	09/05/2001		Page 2		
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME			
1.1.C.C	INFRASTRUCTURE				
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER		
49	JD CHIOU / 64	8-3726	JD CHIOU		
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE				
EW05H3030	EW05H3030 ON-SITE DISPOSAL FACILITY				
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?		11. ESTIMATED START / COMPLETION DATE		
NEW PER CP# FY01-0115-0003-00	1	:	4/03 - 6/09		
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)				
CBSP	OSDF INFRASTRUCTURE CONSTRUCTION				

Drilling and development of a construction water well

Extension of construction water supply piping

Relocation of the perimeter OSDF air monitors

Subtasks of all of these activities, including fencing, ditches, construction of access roads, construction of parking areas, stormwater management and erosion control, dewtering as required and dust

Construction of the EPLTS

d. WORK SPECIFICALLY EXCLUDED:

Air monitoring of the OSDF during the project shutdown is budgeted and done by Environmental Monitoring

Monitoring of leachate is the responsibility of the Aquifer Restoration Project

OSDF is not responsible for Stewardship activities during project shutdown

Treatment of stormwater

Final restoration activities

Placement of impacted material is budgeted in control acount CCPL, control and management of OSDF facilities is budgeted in control account CDG1

Staff labor charged to control account CECP

Monitoring wells

Centralized services provided by other PBSs

WORK SCOPE DEFINITION (Control Account)							
1. PROJECT TITLE		2. DATE					
FEMP (DEFENSE)		09/05/2001	Page 3				
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME					
1.1.c.c	INFRASTRUCTUR	RE					
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER				
49	JD CHIOU / 64	18-3726	JD CHIOU				
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE						
EW05H3030	ON-SITE DISPO	SAL FACILITY					
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?		11. ESTIMATED START / COMPLETION DATE				
NEW PER CP# FY01-0115-0003-00)		4/03 - 6/09				
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ON	IE LINE)					
CBSP	OSDF INFRASTI	RUCTURE CONSTRUC	CTION				
14. ELEMENT TASK DESCRIPTION							
Covers valve houses 1 through	jh 6						
·							
		•	•				
		<i>.</i>					

WORK SCOPE DEFINITION (Work Package)					
1. PROJECT TITLE		2. DATE			
FEMP (DEFENSE)		09/05/2001	Page 1		
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME			
1.1.C.C	INFRASTRUCTUR	RE			
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER		
49	JD CHIOU (372	26)	JD CHIOU		
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE				
EW05H3030	EW05H3030 ON-SITE DISPOSAL FACILITY				
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? 11. ESTIMATED START / COMPLETION DATE					
NEW PER CP# FY01-0015-0003-00)		4/03 - 6/09		
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)				
CBSP1	OSDF MISCELLANEOUS INFRASTRUCTURE PROJECTS				

a. ELEMENTS OF COST:

Labor Subcontracts

b. TECHNICAL CONTENT:

The work under charge no. CBSP1 consists of construction of miscellaneous OSDF Infrastructure Projects. There are several areas adjacent to the OSDF in which the miscellaneous projects will be performed. They are the OSDF Borrow Area, the On-Site Disposal Facility Material Transfer Area (OMTA), the future OMTA Expansion Areas, the Construction Laydown Area, the future Construction Laydown Area, the Contractor's Administration Area and the OSDF North Stockpile Area. The OSDF Borrow Area is south of the OSDF in an area bounded on the east by the Mid-Valley pipeline easement, on the west by the South Entrance Road and on the south by Willey Road.

The OMTA consists of two areas, the Bulk Debris area and the Container Area, both of which are west of the OSDF. The bulk debris area is bounded on the south by the Impacted Material Haul Road, on the north by the Railyard, on the east by the OSDF and on the west by "B" Street. The Container Area is bounded on the south by building no. 77, on the west by "E" Street, on the east by the former production area and it extends to the north to the former location of building no. 78.

The Construction Laydown Area is west of the OSDF and is bounded on the north by the Fire Training road, on the south by the Railyard, on the east by the OSDF and on the west by the HWMU-1.

The Future Construction Laydown Area will be south of OSDF contingency cell number 8 and north of the OSDF Borrow Area.

Project Manager	Control Account Manager	Control Team Manager	
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WORK SCOPE DEFINITION (Work Package)					
1. PROJECT TITLE		2. DATE			
FEMP (DEFENSE)		09/05/2001	Page 2		
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME			
1.1.C.C	INFRASTRUCTURE				
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER		
49	JD CHIOU (372	26)	JD CHIOU		
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE				
EW05H3030	EW05H3030 ON-SITE DISPOSAL FACILITY				
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? 11. ESTIMATED START / COMPLETION DA			11. ESTIMATED START / COMPLETION DATE		
NEW PER CP# FY01-0015-0003-00			4/03 - 6/09		
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)				
CBSP1	OSDF MISCELLANEOUS INFRASTRUCTURE PROJECTS				

The Contractor's Administration Area will be southeast of the OSDF, northeast of the OSDF Borrow Area and southeast of the former Sewage Treatment Facility. The OSDF North Stockpile Area is north of the OSDF, south of the intersection of the new North Entrance road and the old North Entrance Road.

Drivers for These Miscellaneous Projects

- Approved OSDF Final Design
- · Sufficient building trade labor to support double shift
- EPA approval of IMPP change from 4 feet thick intervening layer to 2 feet thick
- · East side of east field Borrow Area contains sufficient suitable material to complete cell liner and final cover construction
- North Access closed by end of FY 04 and no improvements will be made after that
- RIMIA semi-trailer parking area will be relocated or not needed by WGS by the first quarter of FY 04.

c. SCOPE OF WORK:

- · Submittals and Procurement
- · Relocation of Access Control Facility
- · Phase II Removal of Temporary Leachate Line
- · Equipment Wash Certification
- Relocate Existing Stockpiles
- · Permanent Power for Air Monitors and Relocation of Air Monitors
- · OMTA Container area Expansion
- · Construction of New Laydown Area
- · Phase III Removal of Temporary Leachate Line
- · Construction Water Well
- · Demolish North Wheel Wash at Impacted Material Haul Road
- · Remove Underground/Above-ground Interim Leachate Line
- · Demobilization D&D of OSDF Infrastructure Facility
- · Closeout

WORK SCOPE DEFINITION (Work Package)					
1. PROJECT TITLE		2. DATE			
FEMP (DEFENSE)		09/05/2001	Page 3		
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME			
1.1.C.C	INFRASTRUCTURE				
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER		
49	JD CHIOU (372	:6)	JD CHIOU		
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE				
EW05H3030	EW05H3030 ON-SITE DISPOSAL FACILITY				
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? 11. ESTIMATED ST			11. ESTIMATED START / COMPLETION DATE		
NEW PER CP# FY01-0015-0003-00		· ·	4/03 - 6/09		
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)				
CBSP1	OSDF MISCELLANEOUS INFRASTRUCTURE PROJECTS				

d. WORK SPECIFICALLY EXCLUDED:

Phase I Removal of Temporary Leachate Line

Treatment of surface water and leachate

Costs and schedule delays that result from DOE required accountability, criticality or other drills

Final restoration of the OSDF Borrow Area and areas outside the OSDF Final Cover

Leachate contingency plans

Construction of Valve House #7

Excavation and hauling of impacted material from excavations, size reduction of debris and excavated material such as at or below grade structures, utilities and concrete

Purchase and disposal of major pieces of construction equipment which cannot be decontaminated and removed from site except for one CAT #826

Dust control on paved roadways

Impacted Material Haul Road Removal

Size reduction of impacted material or debris from D&D projects

Construction costs for a laydown area at the Waste Pits' Railyard

Construction Quality Control services

Cost increases or schedule delays for unforeseen subsurface geo-technical conditions or resulting from the discovery of cultural resources

WORK SCOPE DEFINITION (Work Package)						
1. PROJECT TITLE		2. DATE				
FEMP (DEFENSE)		09/05/2001	Page 4			
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAM	ME				
1.1.c.c	INFRASTRUCTURE					
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHON	NE	7. WBS ELEMENT MANAGER			
49	JD CHIOU (372	6)	JD CHIOU			
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE					
EW05H3030	ew05H3030 ON-SITE DISPOSAL FACILITY					
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW	SCOPE?		11. ESTIMATED START / COMPLETION DATE			
NEW PER CP# FY01-0015-0003-00			4/03 - 6/09			
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)					
CBSP1	OSDF MISCELLANEOUS INFRASTRUCTURE PROJECTS					
AA ELEMENT TACK DECORIDATION						

Graveled construction laydown yards, 1. North triangle area, 2. Construct laydown yard west of cell 2, 3. Construction laydown yard south of cell 8 will be left in place, 4. Service road to item no. 2 left in place.

WORK SCOPE DEFINITION (Control Account)					
1. PROJECT TITLE		2. DATE			
FEMP (DEFENSE)		09/05/2001	Page 1		
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME			
1.1.C.C	INFRASTRUCTUE	RE .			
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE		7. WBS ELEMENT MANAGER		
49	JD CHIOU/648-3726		JD CHIOU		
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE				
EW05H3030	ON-SITE DISPO	SAL FACILITY	· · · · ·		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?			11. ESTIMATED START / COMPLETION DATE		
CHANGE PER CP# FY01-0015-0003-00			12/00 - 5/09		
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ON	IE LINE)			
CLTS	ENHANCED PERM	MANENT LTS			

a. ELEMENTS OF COST:

Labor Material Subcontract

b. TECHNICAL CONTENT:

This control account covers the completion of the Enhanced Permanent Leachate Transmission System (EPLTS). The entire scope of this work will occur in FY01, beginning December 1, 2000.

c. SCOPE OF WORK:

The scope of this control account is contained within the following two charge numbers:

- CLTS1 Enhanced Permanent LTS Design FY01
- CLTS2 Enhanced Permanent LTS Construction FY01

d. WORK SPECIFICALLY EXCLUDED:

All EPLTS design and construction performed prior to December 1, 2000.

Phase II of the EPLTS to be performed by the Aquifer project.

Project Manager Control Account Manager Control Team Manager

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WORK SCOPE DEFINITION (Work Package)					
1. PROJECT TITLE		2. DATE			
FEMP (DEFENSE)		09/05/2001	Page 1		
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME			
1.1.C.C	INFRASTRUCTUR	RE			
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE		7. WBS ELEMENT MANAGER		
49	JD CHIOU/648-3726		JD CHIOU		
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE				
EW05H3030	ON-SITE DISPO	SAL FACILITY	•		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE			
CHANGE PER CP# FY01-0015-0003-00		12/00 - 5/09			
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	IE LINE)			
CLTS1	ENHANCED PERMANENT LTS DESIGN FY01				

a. ELEMENTS OF COST:

Subcontract

b. TECHNICAL CONTENT:

This charge number covers only the Title III support from the A&E contractor for construction of the Enhanced Permanent Leachate Transmission System during FY01, beginning December 1, 2000.

c. SCOPE OF WORK:

The scope of this charge number is specific to title III support performed only during the completion of the EPLTS as noted above.

d. WORK SPECIFICALLY EXCLUDED:

EPLTS construction

Title I/II Design (completed prior to December 2000)

Title III support performed prior to December 2000.

Design of Phase II of the EPLTS to be performed by the Aquifer project.

FF engineering support

Project Manager	Control Account Manager	Control Team Manager
741. O W		

WORK SCOPE DEFINITION (Work Package) 1. PROJECT TITLE 2. DATE FEMP (DEFENSE) 09/05/2001 Page 1 3. WBS ELEMENT CODE 4. WBS ELEMENT TITLE/NAME 1.1.C.C INFRASTRUCTURE 5. PERFORMING DIV/DEPARTMENT CODE 6. ORIGINATOR NAME/PHONE 7. WBS ELEMENT MANAGER JD CHIOU/648-3726 JD CHIOU 9. BUDGET TITLE 8. BUDGET AND REPORTING NUMBER EW05H3030 ON-SITE DISPOSAL FACILITY 10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? 11. ESTIMATED START / COMPLETION DATE CHANGE PER CP# FY01-0015-0003-00 12/00 - 5/09 12. TASK IDENTIFICATION (WORK PACKAGE) 13. TASK DESCRIPTION (ONE LINE) CLTS2 ENHANCED PERMANENT LTS CONSTRUCTION FY01

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor Materials Subcontract

b. TECHNICAL CONTENT:

This charge number covers the completion of construction and acceptance testing of the Enhanced Permanent Leachate Transmission System (EPLTS). This work will be performed entirely in FY01, beginning December 1, 2000.

c. SCOPE OF WORK:

The scope of this charge number is specific to only that work required to complete construction and start-up of the EPLTS system. Also included is the CM support as noted on manpower sheet 1CC03.

d. WORK SPECIFICALLY EXCLUDED:

EPLTS Design and Title III support

EPLTS construction performed prior to December 1, 2000.

Construction of EPLTS, Phase II to be performed by the Aquifer project.

Project Manager	Control Account Manager	Control Team Manager

SECTION 3

1.0 NARRATIVE

1. PROJECT TITLE:	2. DATE: 04/26/01	3. PBS#: 03
ON-SITE DISPOSAL FACILITY PROJECT		
4. WBS ELEMENT CODE:	5. WBS ELEMENT TITLE:	
1.1.C.C.	OSDF INFRASTRUCTU	RE CONSTRUCTION
6. CAM NAME/ PHONE:	7. CAM SIGNATURE:	
JYH-DONG CHIOU/ 3726		
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: CE	SSP & CLTS
		*

SECTION 3: CBSP - OSDF INFRASTRUCTURE CONSTRUCTION; CLTS - ENHANCED PERMANENT LEACHATE TRANSMISSION SYSTEM

1.0 NARRATIVE

1.1 OVERVIEW

The closure plan for these control accounts covers OSDF Infrastructure Construction and includes expansion of the On-Site Disposal Facility Material Transfer Area (OMTA), construction of a new construction laydown area, relocation of the OSDF access control facility, removal and new construction of the OSDF equipment wash facility, construction of required access roads, removal of the wheel wash on the Impacted Material Haul road and design and construction of the enhanced permanent leachate transmission system. OSDF Infrastructure Construction further covers purchase and installation of a construction break trailer and installation of CQC office trailer and lab trailer parking and service area for equipment and contaminated access roads to the Cell. OSDF Infrastructure Construction also includes removal of the temporary and interim leachate lines, development of another construction water well, extension of construction water supply piping and relocation of the perimeter OSDF air monitors. Work under control account CLTS was completed in FY01.

The tasks included under these control accounts are as follows:

1.1.1 CBSP1 - OSDF Miscellaneous Infrastructure Projects

Charge Number CBSP1 covers the labor, equipment and material costs and subcontractor costs required to construction the miscellaneous infrastructure projects.

1.1.2 CLTS1 - Enhanced Permanent LTS Design

Charge Number CLTS1 covers the labor, material costs and subcontractor costs required to complete the Title III design activities.

1.1.3 <u>CLTS2 - Enhanced Permanent LTS Construction</u>

Charge Number CLTS1 covers the labor, equipment and material costs and subcontractor costs required to complete the construction of the Enhanced Permanent LTS. Activities completed in FY01 include installation of all valve house foundations, installation and testing of double-contained leachate lines, installation and testing of the HDPE secondary containment system, installation and testing of the 13.2KV lines, installation and testing of all valves and instrumentation, and commissioning of Valve Houses 1, 2 & 3.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumption

- Scope and schedule based on Scenario 6.
- All work is performed with building trades personnel (Davis Bacon).
- The future construction laydown area will be built south of the OSDF Cell #8, as part of OSDF Infrastructure (CBSP).
- Phase I of the temporary leachate removal will be performed in 2001.
- The existing leachate lines between manholes 1 and 2 and manholes 2 and 3 will
 not be excavated and removed after the manholes are demolished.
- If required, the Waste Pits Rail Yard area will be available to use as a laydown area for stockpiling of OSDF Construction Materials by IQ FYO6.
- Main phone line trunk relocation that currently is in the OSDF footprint will be re-located by D&D as part of their utility relocation.
- Any alterations to the leachate conveyance line tie-in between the Bio-Surge Lagoon and AWWT are the responsibility of Aquifer.
- Infrastructure work activities will be done by Fluor Fernald and the construction support contractor through FY03. The cell contractor will be responsible for the remaining activities through FY09.

1.2.2 Exclusions

- Treatment of surface water, leachate is excluded.
- Quantities for CLTS work scope, as all work is completed in FY01.
- Additional costs and schedule delays that result from DOE required accountability, criticality or other drills are excluded.

- Final restoration of the OSDF Borrow Area and areas outside of the limits of the OSDF Final Cover is excluded.
- Leachate contingency plans are excluded is excluded from this control account.
- Construction of Valve House #7 is excluded from this control account.
- Excavation and hauling of impacted material from excavations, size reduction of debris and excavated material such as at- or below-grade structures, utilities, and concrete is excluded is excluded from this control account.
- Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site is excluded and assumed to be decontaminated (exception 1 CAT 826).
- Dust Control on paved roads is excluded from this control account.
- Impacted Material Haul Road Removal is excluded from this control account.
- Size reduction of impacted material or debris from D&D projects is excluded from this control account.
- Construction costs for a laydown area at the Waste Pits railyard are excluded.
- Construction Quality Control services are excluded from this control account.
- Cost increases or schedule delays caused by other than normal weather are excluded.
- Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources are excluded.
- Graveled construction laydown yards, 1. North triangle area, 2. Construct laydown yard west of cell 2, 3. Construction laydown yard south of cell 8 will be left in place, 4. Service road to item 2 left in place.

1.2.3 Government-Furnished Equipment/Services

None

1.3 DRIVERS - General

- Approved OSDF Final Design.
- Sufficient building trade labor can be employed to support double shift.

- EPA approves proposed IMPP change from 4-foot intervening layer to 2 foot.
- East side of east field Borrow Area contain-s sufficient suitable material to complete cell liner and final cover construction. Gray clay is not used for clay liner or clay cap construction. Brown clay may be used for vegetative and contouring layers if the required quantity of gray clay is insufficient.
- North Access closed by end of FY 04 and no improvements will be made after that time.
- RIMIA semi-trailer parking area will be relocated or not needed by WGS by the first quarter of FY04.

1.4 PROJECT PHYSICAL DESCRIPTION

The following comprises the areas in which OSDF infrastructure construction will be performed:

The On-Site Disposal Facility is located in the northeast corner of the FEMP. The facility is located within survey coordinates N483400, N480000, E1351750, and E1350600. There are several areas adjacent to the OSDF, which support the construction of the liners, caps and impacted material placement. These are the OSDF Borrow Area, the On-Site Disposal Facility Material Transfer Area (OMTA), the future OMTA Expansion Areas, the Construction Laydown Area, the future Construction Laydown Area, the Contractor's Administration Area and the OSDF North Stockpile Area.

The OSDF Borrow Area is south of the OSDF in an area bounded on the east by the Mid-Valley pipeline easement, on the west by the South Entrance Road, and on the south by Willey Road. The remaining area for OSDF Borrow Area development is approximately 30 acres and will be developed in seven Subareas.

The OMTA currently consists of two areas, the bulk debris area and the container area, both are located west of the OSDF. Both areas of the OMTA will be expanded as the project progresses.

The existing container area is bounded on the south by Building 77, on the west by "E" Street, on the east by the former production area fence, and it extends to the north to the former location of Building 78. The container area will be expanded to the north and to the south. It will be extended to the north to the Impacted Material Haul Road. It will be expanded to the south approximately to the south edge of the existing water tower.

PBS-03, ON-SITE DISPOSAL FACILITY PROJECT CLOSURE PLAN BASIS OF ESTIMATE 20100-PL-0023, Revision 1 September 2001

The existing bulk debris area is bounded on the south by the Impacted Material Haul Road, on the north by the railyard, on the east by the OSDF and on the west by "B" Street. The bulk debris area will be expanded to the west into the area of the existing quonset huts. The expanded bulk debris area will be bounded on the north by the former production area fence, on the south by the Impacted Material Haul Road, on the east by "B" Street and on the west by stockpile SP-7.

The existing Construction Laydown Area is located west of the OSDF. It is bounded on the north by the Fire Training Road, on the south by the railyard on the east by the OSDF on the west by HWMU-1. Another construction laydown area will be built to the south of contingency OSDF Cell 8 and north of the OSDF Borrow Area.

The Contractor's Administration Area is located southeast of the OSDF. It is northeast of the OSDF Borrow Area and southeast of the form Sewage Treatment Plant.

The OSDF North Stockpile Area is located north of the OSDF. It is located south of the intersection of the new North Entrance Road and the old North Entrance Road.

1.5 PROJECT PLAN/TECHNICAL SCOPE AND QUANTIFICATION

- 1.5.1 CBSP1 OSDF Miscellaneous Infrastructure Projects
- 1) Task #1 Submittals and Procurement
- 1.1) Subtask #1 Submittals
- 1.1)1 Plan/Scope Submittals
- Prepare work plans, technical submittals and the submittal register. Work plans
 and technical submittals will be prepared by SDFP Engineering and supported by
 SDFP construction, safety and QC. Work plans include surface water management
 and erosion control plan, earthwork work plan, fugitive dust control, safe work
 plan, traffic control plan, and QA plan. Prepare construction schedule for
 infrastructure projects through FY03.

1.1)2 Quantification - Submittals

- Intermittent review of plan. Labor construction engineering, engineering, safety, quality assurance, and resident engineer.
- 1.2) Subtask #2 Procurement
- 1.2)1 Plan/Scope Procurement

PBS-03, ON-SITE DISPOSAL FACILITY PROJECT CLOSURE PLAN BASIS OF ESTIMATE 20100-PL-0023, Revision 1 September 2001

It schedule for infrastructure projects. Procure material, d specialty contractor services. The following material, d services will be procured for the OSDF miscellaneous ts:

construction/Rad fence, riprap for check dams, surfactant, concrete, reinforcing steel and other materials for construction nt wash; geotextile material and #304 stone for the in area, access control facility, access roads and OMTA oles, phone lines, security lights, potable water lines and drain access control facility;

, small tools and heavy equipment, supplies for field survey, ess facilities, tool trailer and a 12' x 60' break trailer.

es Labor, Labor Support Contractor labor,

ces: subcontractor for development of a new construction ractor for installation and setup of the new break trailer, uipment maintenance, subcontractor for fueling of equipment, vide construction debris/trash removal and port-o-let services to provide bottled water.

urement

ons through FY03

n of Access Control Facility

tion of Access Control Facility

ment, perform safety checks, training, installation of surface and erosion controls, construction/Rad fence, installation of

ground utilities to the new access control facility and new ility including potable water, and drain lines

to the access control facility and new equipment wash facility

ailers T-96, T-98 and T-125 from existing access control subcontractor will provide oversight for trailer removal.

access control facility and new contaminated access road

- Placement of 8" of #304 stone at the new access control facility and contaminated access road
- Excavate and construct a new sediment basin and excavate and construct the new equipment wash facility. The sediment basin and the equipment wash facility are lined with geomembrane
- Install fence around relocated access control facility and new equipment wash facility
- Dust control

2.2) Quantification - Relocation of Access Control Facility

- Mobilization of equipment will take 1 week and require 1 mechanic and 1 safety engineer. Installation of surface water management and erosion controls, construction/Rad fence, installation of construction signs will take 5 days and require 4 laborers, 1 operator, CAT 416, 1,000lf silt fence.
- Installation of underground utilities will take 21 days and will require 1 CAT 416 backhoe, 1 walk-behind compactor, 1 CAT D-6 dozer, 2 operators, 1 CAT 613 waterwagon, .5 teamster, 3 laborers
- Installation of power to the access control facility and new equipment wash facility will take 10 days and will require 2 electricians, 1 bucket truck, power poles, cable and other electrical equipment
- Removal and storage of trailers T-96, T-98 and T-125 will take 10 days and will require 1 CAT TH83 forklift, 1 operator, 2 carpenters and 2 laborers
- Grading of the new access control facility and new contaminated access road will take 30 days and will require 1 CAT D6 LGP bulldozer, 1 CAT 14G motor grader, 1 CAT 613 paddle wheel, 1 CAT 825 sheep's foot roller, 1 CAT 563 smooth drum roller, 3 operators, 1 CAT 613 waterwagon, .5 teamster and 2 laborers
- Placement of 8" of #304 stone at the new access control facility and contaminated access road will take 15 days and will require 1 CAT D8 bulldozer with a spreader box, 1 CAT 563 smooth drum roller, 2 operators, 1 CAT 613 waterwagon, 1 teamster and 2 laborers. This activity will require 150,000 sf of geotextile, and 6,000 tons of #304 stone
- Excavation and construction of a new sediment basin and excavate and construction of the new equipment wash-facility will take 25 days and will require 1 CAT 416 backhoe and 1 operator for 25 days, 1 CAT D6 bulldozer and

1 operator for 10 days, 1 Volvo A-30 truck and 1 teamster for 10 days, 1 walk behind compactor, 2 electricians for 5 days, 2 pipefitters for 5 days, 2 carpenters for 10 days, and 2 laborers for 25 days. This activity will require 4,500 sf of geomembrane and geotextile material and 300 tons of #57 washed stone

- Installation of the 300 feet of chain link fence around relocated access control facility and new equipment wash facility will take 5 days and require 1 bobcat with a post hole attachment, 1 operator, 2 ironworkers ad 1 laborer
- 3) <u>Task #3 Phase II Temporary Leachate Removal</u>
- 3.1) Plan/Scope Phase II Temporary Leachate Removal
- Remove/size reduce old equipment wash and haul to a stockpile area in Cell #3.
- Excavate and remove 900lf of old leachate and haul and stockpile in cell 3, 2,500cy of excavation.
- Excavate and remove impacted material around and under the old access control area, 4,500cy.
- Phase II leachate backfill 900lf trench with clean material from borrow area.
- 3.2) Quantification Phase II Temporary Leachate Removal
- 1 CAT 330 excavator, 1 CAT D-6 dozer, 1 Volvo A-30 truck, 1 day, 2 operators for 3 days, 2 laborers for 5 days.
- 1 CAT 330 excavator, CAT D-6 dozer, 2" pump, 1 trench box, 3 Volvo A-30 trucks.
- 1 CAT 330 excavator, 1 CAT D-6 dozer, 3 Volvo A-30 trucks, 1 CAT 613 waterwagon, 2 operators for 10 days, 2 laborers for 10 days, and 3.25 teamsters for 6 days.
- 1 CAT 950 loader, 1 CAT 330 excavator, 1 CAT D-6 dozer, 1 CAT 825 sheep's foot roller, 2 CAT 563 smooth drum roller, 1 2x2"pump, 1 CAT 613 waterwagon, 3 operators for 15 days, 3 laborers for 15 days, 1 foreman for 15 days, and 3.25 teamsters for 6 days.
- 4) Task #4 Equipment Wash Certification
- 4.1) Plan/Scope Equipment Wash Certification
- This scope of work includes planning, agency review, field sampling, laboratory analysis, and analytical result reporting to the regulatory agencies. Development of the variances for the A1PII Precertification and Certification Project Specific Plans

and a Page Change Notice (PCN) to A1PII Certification Design Letter documentation This documentation is necessary as describing the scope of work for certifying one (1) Certification Unit at EWW. Matrixed support is necessary for the development and review of the variance and PCN. Additionally, matrixed support is necessary for physical sampling (Environmental Monitoring, PBSO4) and laboratory analysis (Analytical Services, PBSO4). Projectized support from SDFP real-time is necessary after EWW removal to address precertification. Precertification results will be included with PCN and variance. Projectized support also is necessary to draft the variances, draft the PCN, survey 16 certification sample locations, and update results in A1PII Certification Report. Centralized support will be necessary from ECDC and for certifications statistical tables.

4.2) Quantification - Equipment Wash Certification

• Work will occur over two quarters. The first quarter will allow for variances and PCN development and regulatory review. It is assume that the agencies and the project will need to familiarize themselves with the Area 1 documentation. The second quarter will allow for field, analytical work, final documentation, and agency approval. Actual field surveying of sixteen (16) certification locations and sample taking with submission to the onsite analytical laboratory can be accomplished in two (2) work days. Matrix manpower is listed below for 3 quarters:

MPM	3rd Qtr FY03	4th Qtr FY04
qaqctec s&heng	4 hours 4 hours	4 hours
chemist	0	20 hours
labtec	0	20 hours
enstec	0	40 hours
ensrep	0	10 hours

5) Task #5 - Relocate Existing Stockpiles

5.1) Plan/Scope - Relocation Existing Stockpiles

- Excavate, load and haul stockpiles that are located in the southeast corner of the OSDF Cell #4 footprint. Stockpiles are to be relocated to the Borrow Area Stockpile Area
- Dust Control

5.2) Quantification - Relocation Existing Stockpiles

- Excavation, loading and hauling approximately 12,000 cy of stockpiles from the southeast corner of the OSDF Cell #4 footprint will take 15 days and will require 1 CAT 330 excavator, 1 CAT D6 bulldozer, 2 operators, 3 Volvo A-30 trucks, 1 CAT 613 waterwagon, 4 teamsters and 1 laborer
- 6) Task #6 Permanent Power for Air Monitors and Relocation of Air Monitors
- 6.1) Plan/Scope Permanent Power for Air Monitors and Relocation of Air Monitors
- Install permanent power along the east side of the OSDF for the perimeter OSDF air monitors
- Relocate air monitors at the completion of each new liner and prior to placement of the 1 foot impacted material protective cover for each liner.
- Construction survey
- Dust control
- 6.2) Quantification Permanent Power for Air Monitors and Relocation of Air Monitors
- Installation of permanent power along the east side of the OSDF for perimeter air monitors will take 15 days and will require 1 bucket truck, 8 power poles and 2 electricians
- Relocation of air monitors at the completion of each new liner and prior to placement of the 1 foot impacted material protective cover for each liner will take 5 days and will require 1 CAT 416 backhoe, 1 operator, 2 laborers and 2 electricians.
- 7) Task #7 OMTA Container Area Expansion
- 7.1) Plan/Scope OMTA Container Area Expansion
- Expansion of the OMTA Container area north to the Impacted Material Haul Road and south to approximately the south edge of the existing water tower
- Construct a new OMTA stormwater collection system
- Construction survey
- Dust control
- 7.2) Quantification OMTA Container Area Expansion

- Expansion of the OMTA Container area will take 45 days and will require 1 CAT D6 bulldozer, 1 CAT 950 loader, 2 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon, and 1.5 teamsters. This activity will require 153,000 sf of geotextile and 6,000 tons of #304 stone
- Construction of new OMTA stormwater collection system will take 8 days and will require 3 laborers, 1 operator, 1,000 lf of pipe, CAT 416B, CAT 563 walk behind compactor.
- Construction survey will take 5 days and will require 2 surveyors.
- 8) Task #8 Construction of New Laydown Area
- 8.1) Plan/Scope Construction of New Laydown Area
- Construction of a new construction material laydown area south of Cell #8.
- Installation of construction fence around the new construction material laydown area
- Construction survey
- Dust control
- 8.2) Quantification Construction of New Laydown Area
- Excavation/grading of the new construction material laydown area south of Cell #8 will take 20 days and will require 1 CAT D6 LGP bulldozer, 1 CAT 613 paddle wheel, 1 CAT 563 smooth drum roller, 2 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon, 3 teamsters and 2 laborers.
- Placement of the gravel surface will take 15 days and will require 1 CAT D8 bulldozer with spreader box, 1 CAT D6 bulldozer, 2 operators, 1 CAT 613 waterwagon, 1 teamster and 4 laborers. This activity will require 436,000 sf of geotextile and 17,000 tons of #304 stone.
- Installation of construction fence around the construction material laydown area will take 5 days and will require 3 laborers. This activity will require 2,700 lf of construction fencing material.
- Construction survey will take 5 day and will require 2 surveyors.
- Dust control
- 9) Task #9 Removal of Temporary Leachate Line Phase III

9.1) Plan/Scope - Removal of Temporary Leachate Line - Phase III

- Excavate and remove the existing underground temporary leachate line (Phase III) from approximately station 28+00 to station 36+00. This represents approximately 800 If of leachate line from the EPLTS permanent lift station north.
- Backfill and compact the excavation
- Repair asphalt 20x15
- Fertilize and seed 24,000 sq ft

9.2) Quantification - Removal of Temporary Leachate Line - Phase III

- Excavation will take 15 days and will require 1 CAT 330 excavator, 1 CAT D6 bulldozer, 2 operators, 3 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 12.5 days), 3.5 teamsters, 1 3" pump, and 2 laborers
- Backfill of the excavation will take 15 days and will require 1 CAT 330 excavator,
 1 CAT D6 bulldozer, 1 CAT 950 loader, 1 CAT 563 smooth drum roller,
 3 operators, 1 CAT 613 waterwagon, 3 Volvo A-30 trucks, 3.5 teamsters 2 walk behind compactors and 3 laborers.
- Asphalt repair 1 day sub 20x15
- Seed and fertilize 24,000 sq ft 2 laborers 2 days

10) Task #10 - Construction Water Well

10.1) Plan/Scope - Construction Water Well

- Drill and develop construction water well capable of pumping 250-350 gpm.
- Tie water well into construction water lines and install additional water line.

10.2) Quantification - Construction Water Well

- Drilling and development of a construction water well will be performed by a specialty subcontractor.
- Tie in of the water well to the existing construction water lines and installation of 2,000 If of 4" HDPE water line will take 5 days and will require 2 pipefitters, and a HDPE pipe welding machine
- 11) Task #11 Demolish Existing North Wheel Wash at Impacted Material Haul Road

11.1) Plan/Scope - Demolish Existing North Wheel Wash at Impacted Material Haul Road

- Lock out water and electric
- Disconnect water
- Demolish, size reduce concrete slab
- Excavate, load, haul concrete to the OSDF
- Dust control

11.2) Quantification - Demolish Existing North Wheel Wash at Impacted Material Haul Road

- Lockout of water and electric will require 2 pipefitters for 0.5 days and 2 electricians for 0.5 days
- Disconnecting water lines will take 1 day and required 2 pipefitters
- Demolition and size reduction of the concrete slab will take 2 days and will require
 1 CAT 330 excavator with a hoe-ram attachment, 1 operator and 2 laborers
- Excavation, loading and hauling of the concrete to the OSDF will take 2 days and will require 1 CAT 330 excavator, 1 operator, 1 Volvo A-30 truck, 1 teamster and 2 laborers
- Dust control will require 1 CAT 613 waterwagon and 1 teamster for 2 days
- 12) Task #12 Remove Underground/Above-Ground Interim Leachate Line
- 12.1) Plan/Scope Remove Underground/Above-Ground Interim Leachate Line
- Remove the underground/ above ground interim leachate line from LCS/LDS manhole #3 to the existing sediment basing inlet adjacent to the south end of OSDF Cell #5.
- Dust Control

12.2) Quantification - Remove Underground/Above-Ground Interim Leachate Line

- Removal of the underground/ above ground interim leachate line (approximately 1,000 lf) will take 4 days. This activity will require 1 CAT 330 excavator and 1 operator for 1 day, 1 CAT TH83 forklift and 1 operator for 3 days, roll-off box truck and 1 teamster for 0.5 days, and 2 laborers for 4 days
- This activity will require 1 CAT 613 waterwagon and 1 teamster for 2 days.
- 13) Task #13 Demobilization D&D of OSDF Infrastructure Facility

13.1) Plan/Scope - Demobilization - D&D of OSDF Infrastructure Facility

- Remove 15,000 If of 4" HDPE temporary construction water lines and dispose of in the OSDF
- Remove contaminated surface at access control facility and dispose of in the OSDF
- Demolish and dispose of the new equipment wash and dispose of in the OSDF
- Remove above ground electric, power poles and air monitors
- Disconnect utilities to trailers T-96, T-98, T-125, T-135 and the break trailer and dispose of in the OSDF
- Demolish and size reduce trailers and dispose of in the OSDF
- Demolish and size reduce CAT 826 compactor and dispose of in the OSDF
- Demolish and size reduce the 4 specialized roll-off boxes used to transport debris and dispose of in the OSDF
- Decontaminate equipment
- Placement of this material in the OSDF is covered under charge number CCPL3

13.2) Quantification - Demobilization - D&D of OSDF Infrastructure Facility

- Removal of 15,000 If of 4" HDPE temporary construction water lines will take
 10 days and will require 1 CAT TH83 forklift, 1 operator, 1 roll-off box truck,
 2 roll-off boxes, and 4 laborers. This activity will require 1 teamster for 0.5 days.
- Removal of the contaminated surface at the access control facility will take 7 days and will require 1 CAT 330 excavator, 1 CAT D6 bulldozer, 2 operators, 3 Volvo A-30 trucks, 3 teamsters, and 2 laborers. This activity will also require 1 CAT 613 waterwagon and 1 operator for 3.5 days. The approximate quantity of material to be excavated and disposed of is 7,000 CY.
- Demolition and disposal of the new equipment wash will take 2 days and will require 1 CAT 330 excavator, 1 CAT D6 bulldozer, 2 operators, 1 roll-off box truck and roll-off box, 1 teamster and 2 laborers.
- Remove above ground electric, power poles and air monitors will take 2 days and will require 2 electricians, 1 bucket truck, and 2 laborers.

- Disconnecting utilities from trailers will take 1 day and will require 2 pipefitters and 2 electricians
- Demolition and size reduction of the trailers will take 5 days and will require 1 CAT 330 excavator with a shear attachment, 1 CAT 950 loader, 2 operators, 1 roll-off box truck with specialized roll-off box, 1 teamster, and 2 laborers
- Demolition and size reduction of the CAT 826 compactor will take 2 days and will require 1 CAT 330 excavator with a shear attachment, 1 CAT 950 loader, 2 operators, 1 roll-off box truck with specialized roll-off box, 1 teamster, and 2 laborers. This activity will also require 1 mechanic for 0.5 days to drain fluids from the CAT 826.
- Demolition and size reduction of the 4 specialized roll-off boxes will take 2 days and will require 1 CAT 330 excavator with a shear attachment, 1 CAT 950 loader, 2 operators and 2 laborers
- Decontamination of equipment will take 5 days and will require 2 laborers and 2 pressure washers
- 14) <u>Task #14 Phase I Temporary Leachate Removal</u>

14.1) Plan/Scope - Phase I Temporary Leachate Rremoval

- Excavate and remove 1300lf of old leachate and haul and stockpile in cell 3, 3,850cy of excavation.
- Phase I leachate backfill 1300lf trench with clean material from borrow area.

14.2) Quantification - Phase I Temporary Leachate Removal

- 1 CAT 330 excavator, 1 CAT D-6 dozer, 3 Volvo A-30 trucks, 1 CAT 613 waterwagon, 2 operators for 10 days, 2 laborers for 10 days, and 3.25 teamsters for 6 days.
- 1 CAT 950 loader, 1 CAT 330 excavator, 1 CAT D-6 dozer, 1 CAT 825 sheep's foot roller, 2 CAT 563 smooth drum roller, 1 2x2"pump, 1 CAT 613 waterwagon, 3 operators for 15 days, 3 laborers for 15 days, 1 foreman for 15 days, and 3.25 teamsters for 6 days.

15) Task #15 - Closeout

15.1) Plan/Scope - Closeout

- Completion of project punchlist
- Final survey and redlines
- Demobilization

PBS-03, ON-SITE DISPOSAL FACILITY PROJECT CLOSURE PLAN BASIS OF ESTIMATE 20100-PL-0023, Revision 1 September 2001

15.2) Quantification - Closeout

Not applicable

SECTION 3

2.0 SCHEDULE

	Early	rari	? }	
Description	Start	Finish	Dar	FY01 FY02 FY03 FY04 FY05 FY06 FY07 FY08 FY09 FY10 FY11
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1.1.C.C INFRASTRUCTURE				
CBSP1 OSDF MISC INFRASTRUCTURE PROJECTS	ROJECTS			
CCBSP10010 Access Control Facility Project	01APR03*	27AUG03	104	Access Control Facility Project
CCBSP10020 Phase II Leachate	15MAY03*	14AUG03	64	Phase II Leachate
CCBSP10050 Elect Power For Air Monitors	01OCT03*	28OCT03	20	▼Elect Power For Air Monitors
CCBSP10110 Remove Remaining Stockpile Materials SE 0f C-4	01MAR04*	19MAR04	15	Remove Remaining Stockpile Materials SE 0f C-4
CCBSP10060 Relocate Air Monitoring Station - FY04	10SEP04	30SEP04*	15	Relocate Air Monitoring Station - FY04
CCBSP10130 OMTA Transfer Area Expansion	01OCT04	07DEC04	45	■OMTA Transfer Area Expansion
CCBSP10070 Relocate Air Monitoring Station - FY05	26SEP05	30SEP05*	2	Relocate Air Monitoring Station - FY05
CCBSP10150 Construction Water Well	03OCT05	28OCT05	20	Construction Water Well
CCBSP10030 Phase III Leachate	03OCT05*	14NOV05	30	Phase III Leachate
CCBSP10160 D&D Wheel Wash	14NOV05	18NOV05	2	D&D Wheel Wash
CCBSP10080 Relocate Air Monitoring Station - FY06	25SEP06	29SEP06*	2	Relocate Air Monitoring Station - FY06
CCBSP10040 Removal of Interim Leachate Line	02OCT06*	060CT06	2	Removal of Interim Leachate Line
CCBSP10090 Relocate Air Monitoring Station - FY07	24SEP07	28SEP07*	5	Relocate Air Monitoring Station - FY07
CCBSP10100 Relocate Air Monitoring Station - FY08	01AUG08	29AUG08	21	Relocate Air Monitoring Station - FY08
CCBSP10170 D&D OSDF Infrastructure	01MAY09*	15JUN09	31	D&D OSDF Infrastructure
CLTS1 ENHANCED PERMANENT LTS TITLE DESIGN		FY01		
CCLTS10010 OSDF Enhanced Permanent LTS Title III Design	1 01DEC00	15MAY01	113	SDF Enhanced Permanent LTS Title III Design
CLTS2 ENHANCED PERMANENT LTS CONSTRUCTION FYO	NSTRUCTION	V FY01		
CCLTS24000 OSDF Enhanced Perm Leachate	01DEC00	15MAY01	113	OSDF Enhanced Perm Leachate Construction

Start Date Finish Date Date Date Date Run Date

ON-SITE DISPOSAL FACILITY 1.1.C.C INFRASTRUCTURE 01DEC00 BLCF - CC01 27DEC09 01DEC00 10SEP01 15:39

Early Bar
Progress Bar
Critical Activity

heckedApproved Revision Date E-547 E-553

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SECTION 3 3.0 MANPOWER PLANS

MPS # 1CC01 OSDF MISC INFRASTRUCTURE PROJECTS

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306 OSDF CELL 4 - Site Prep and Liner	08/15/2003	12/30/2004											2	<u> </u>	xxx xxx xxx xxx xxx	X	×	XX							
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309 OSDF CELL 5 - Site Prep and Liner	08/18/2004	12/30/2005															×	XX XXX XXX XXX XXX	×	×	_ ×	×			
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MPS # 1CC01 OSDF MISC INFRASTRUCTURE PROJECTS

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306 OSDF CELL 4 - Site Prep and Liner	08/15/2003	12/30/2004																
308 OSDF CELL 4 - Cap	03/01/2007	12/20/2007		XX	XXX XXX X	XX												
309 OSDF CELL 5 - Site Prep and Liner	08/18/2004	12/30/2005																
311 OSDF CELL 5 - Cap	03/03/2008	12/22/2008					XXX XXX X	X	X									
312 OSDF CELL 6 - Site Prep and Liner	08/18/2005	12/29/2006	XXX															
314 OSDF CELL 6 - Cap	03/02/2009	11/16/2009								×	XX XXX XXX	×						
315 OSDF Monitoring & Maintenance	10/02/2000	12/23/2009	XXX	XXX	XXX	XXX	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	××	XXX	X	×	XX						
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320 OSDF CELL 7 - Cap	03/02/2009	12/23/2009																					
321 OSDF Cell Placement	10/01/2003	06/30/2009											, xxx	X	XX	*** *** *** *** *** *** *** *** ***	XXX	XXX	××	×	××	×××	
Construction Con	Construction Coordinator		2.00	8.0	0.7 0.5	0	0	0	0	0	0	-	0	0	0	-	0	0	0	0	0	0	
Engineering & Design Engi	Engineer		5.90	3.1	2.6 0.2	-	0	0 0	-	0		0	0	0	0	-	0	0	0	0	0	0	_
Waste Management Was	Waste Engineer		0.10			-	0	0 0	-	0	0	0	0	0	0	-	0	0	0	0	0	0	
Engineering & Design Engi	Engineer Piping/Mechanic		2.30	6.0	9.0 8.0	0	0	0 0	-	0	0	0	0	0	0	-	0	0	•	0	0		
QAQC	QA Engineer		3.70	8 .	1.6 0.3	•	0	0	0	•	0	•	0	0	0	-	0	0	0	0	0		
Environmental Safety & H Rad Tech	l Tech		0.10	0	0.1	•	0	0	-	Ö	0	0	0	0	0	-	0	0	•	0	0		
Environmental Safety & H Safety Engineer	ety Engineer		0.80	0	0.3 0.5	-	0	0 0	•	0		0	0	0	0	。	0	0	•	0	0		
Procurement Buy	Buyer/Contracts Administrator	rator	0.70	0.5	0.2	-	0	0	•	0		0	0	0	0	-	0	0	0	0	0		
Human Resources & Publ Human Resource Rep.	nan Resource Rep.		0.40	0.1	0.3	0	0	0 0	0	0	0	0	0	0	0	-	0	0	0	0	0		
Construction	Construction Engineer		3.60	6:0	1.3	•	0	0 0	0	0	0	0	0	0	0	-	0	0	0	0	0		
Administration Clerks	rks		0.10	0.1		•	0	0 0	0	0	0	0	0	0	0	-	0	0	•	0	0		•
Construction	Construction Mgr.		1.50	6.0	9.0	•	0	0 0	-	0	0 0	0	0	0	0	-	0	0	0	0	0		0
General Labor Gen	General Laborer		2.60	4	1.2	•	0	0 0	-	0	0 0	0	0	0	0	-	0	0	0	•	0		0
Engineering & Design Draf	Drafter/CAD Operator		0.20	0.2		0	0	0	•	0	0	•	0	0	0	-	0	0	0	0	0		•
	Shee	Sheet Totals:	24.00	10.70 9.	9.80 3.50	0.00	0.00	0.00 0.00	0.00	0.00 0.00	00.00	0.00	0.00	0.00	0.00 0.00	00:00	0.00	0.00	0.00	0.00	0.00 0.00	00.00	ا

MPS # 1CC03 ENHANCED PERMANENT LTS CONSTRUCTION F

DRIVERS	START DATE	END DATE	FY 2007 Q1 Q2 Q3 Q4	FY 2008 Q1 Q2 Q3 Q4	FY 2009 Q1 Q2 Q3 Q4	FY 2010 Q1 Q2 Q3 Q4	FY 2011 Q1 Q2 Q3 G	8
301 OSDF Summary Schedule	04/01/2004	12/23/2009	XXX XXX XXX XXX	XXX XXX XXX XXX	*** *** *** *** *** *** *** *** *** **	XXX		
302 OSDF CELL 1 - Cap	11/09/2000	09/28/2001						
303 OSDF CELL 2 - Cap	03/01/2005	12/30/2005						
305 OSDF CELL 3 - Cap	03/01/2006	12/29/2006	xxx					
306 OSDF CELL 4 - Site Prep and Liner	r 08/15/2003	12/30/2004						
308 OSDF CELL 4 - Cap	03/01/2007	12/20/2007	XXX XXX X	XXX				
309 OSDF CELL 5 - Site Prep and Liner	r 08/18/2004	12/30/2005						
311 OSDF CELL 5 - Cap	03/03/2008	12/22/2008		XXX XXX X	xxx			
312 OSDF CELL 6 - Site Prep and Liner	r 08/18/2005	12/29/2006	XXX					
314 OSDF CELL 6 - Cap	03/02/2009	11/16/2009			xx xxx xxx	××		
315 OSDF Monitoring & Maintenance	10/02/2000	12/23/2009	XXX XXX XXX XXX	XXX XXX XXX	xxx xxx xxx xxx xxx xxx xxx xxx xxx xx	xxx		
317 WASTE ACCEPTANCE ORGANIZATION	ATION 10/01/2003	09/30/2009	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX XXX XXX XXX	XXX XXX XXX XXX			
318 Interim Cap for Cells 2&3	11/01/2001	11/21/2001						
319 OSDF CELL 7 - Liner	08/16/2006	12/31/2007	XXX XXX XXX XXX	XXX				
320 OSDF CELL 7 - Cap	03/02/2009	12/23/2009			XXX XXX X	XXX		
321 OSDF Cell Placement	10/01/2003	06/30/2009	XXX XXX XXX XXX XXX XXX XXX XXX XXX	XXX XXX XXX	xxx xxx xxx			
Construction	Construction Coordinator	-	0 0 0	0 0 0	0 0 0	0 0 0	0 0	0
Engineering & Decion	Fnoineer		0 0 0	0 0 0	0	0 0 0	0	0
				,	•	•		,
Waste Management	Waste Engineer		0	0 0	0	0 0	0	0
Engineering & Design	Engineer Piping/Mechanic	ıic	0 0 0	0 0 0 0	0 0 0	0 0 0 0	0	0
QA/QC	QA Engineer		0 0 0	0 0 0	0 0 0	0 0 0	0	0
Environmental Safety & Health	Rad Tech		0 0 0	0 0 0	0 0 0	0 0 0	0	0
Environmental Safety & Health	Safety Engineer		0 0 0	0 0	0 0	0 0 0	0	0
Procurement	Buyer/Contracts Administrator	strator	0 0 0	0 0 0 0	0 0 0	0 0 0 0	0 0	0
Human Resources & Public Affairs	Human Resource Rep.		0 0 0	0 0 0	0 0 0	0 0 0	0	0
Construction	Construction Engineer		0 0 0	0 0 0	0 0 0	0 0 0	0 0	0
Administration	Clerks		0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0	0
Construction	Construction Mgr.		0 0 0	0 0 0 0	0 0 0	0 0 0	0	0
General Labor	General Laborer		0 0 0	0 0 0	0 0 0	0 0 0	0	0
Engineering & Design	Drafter/CAD Operator		0 0 0	0 0 0	0 0	0 0 0	0 0	0

00.0 00.0

Sheet Totals:

SECTION 3

4.0 ESTIMATE

CBSP1 OSDF MISC INFRASTRUCTURE PROJECTS



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Page 1 of 2

PBS:	OHFN03				Fluor	Fernald,	d, Inc.					DATE:	05-Sep-01
WBS: CTRL ACCT: CHARGE NO: COMMENT NC	WBS: 1.1.C.C CTRL ACCT: CBSP CHARGE NO: CBSP1 COMMENT NO D551,D552,D553				ESTIMA FOR AC	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	KSHEET MATING URS)					ECT MGR: ARED BY: L YEAR:	JD Chiou JD Chiou W. F. Fick 2003-2009
Resource: Res Dept:	DRFCAD 949	DRAFTER/CAD OPERATOR Overtime:		Class: S	EOC: SAL	LABOR							
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	i: Ast;	Oct 00- Sep 01 0.0 0	Oct 01- Sep 02 0.0 0.0 0	Oct 02- Sep 03 88.3 88.3 3,071	Oct 03- Sep 04 0.0 88.3 8 3,071	3- Oct 04- 24 Sep 05 .0 0.0 .3 88.3 0 0	Oct 05- Sep 06 19.7 108.0 821 3,892	Oct 06- Sep 07 19.7 127.7 890 4,782	Oct 07- Sep 08 0.0 127.7 4,782	Oct 08- Sep 09 0.0 127.7 0	Oct 09- Sep 10 0.0 127.7 0 4,782		
Resource: Res Dept:	ENSREP 849	ENVIR SCIENCE REP Overtime:		E Class: S	EOC: SAL	LABOR							
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	:: 151:	Oct 00- Sep 01 0.0 0.0 0	Oct 01- Sep 02 0.0 0.0	Oct 02- Sep 03 88.3 88.3 4,132	Oct 03- Sep 04 42.1 130.4 2,086 6,218	3- Oct 04- 4 Sep 05- 1 42.0 4 172.4 6 2,204- 8 8,422	Oct 05- Sep 06 65.1 237.5 3,650	Oct 06- Sep 07 58.0 295.5 3,525 15,597	Oct 07- Sep 08 0.0 295.5 0	Oct 08- Sep 09 0.0 295.5 0	Oct 09- Sep 10 0.0 295.5 0		
Resource: Res Dept:	ENSTEC 949	ENVIR SCIENTIST TECH Overtime:		Class: S	EOC: SAL	LABOR							
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	:: St:	Oct 00- Sep 01 0.0 0.0 0	Oct 01- Sep 02 0.0 0.0 0	Oct 02- Sep 03 0.0 0.0 0	Oct 03- Sep 04 42.1 42.1 1,408	3- Oct 04- 4 Sep 05 1 3.3 1 45.4 1 1,525	Oct 05- Sep 06 49.3 94.7 1,866 3,391	Oct 06- Sep 07 26.3 121.0 1,079	Oct 07- Sep 08 0.0 121.0 0 4,470	Oct 08- Sep 09 0.0 121.0 6,470	Oct 09- Sep 10 0.0 121.0 0		
Resource: Res Dept:	FIELDSUB 949	FIELD SUBS Overtime:	ပ	Class: S	EOC: SUB	SUBCONTRACTORS	ıRS						
Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:	ι: 151 :	. Oct 00- Sep 01 0.0 0.0	Oct 01- Sep 02 0.0 0.0	Oct 02- Sep 03 944,920.0 944,920.0 996,635	Oct 03- Sep 04 243,750.0 1,188,670.0 264,289 1,260,923	3- Oct 04- 44 Sep 05- 0 738,420.0 0 1,927,090.0 19 823,058	Oct 05- Sep 06 343,780.0 2,270,870.0 394,297 2,478,278	Oct 06- Sep 07 194,190.0 2,465,060.0 229,184 2,707,462	Oct 07- Sep 08 37,960.0 2,503,020.0 46,100 2,753,562	Oct 08- Sep 09 222,880.0 2,725,900.0 278,522 3,032,084	Oct 09- Sep 10 0.0 2,725,900.0 0 3,032,084		
Resource: Res Dept:	INDHYG 949	INDUSTRIAL HYGIENIST Overlime:		E Class: S	EOC: SAL	LABOR							

Page 2 of 2

lot 04- Oct 05- Oct 06- Oct 07- Oct 08- Oct 09- 42.0 Sep 06 Sep 07 Sep 08 Sep 10 Sep 10 42.0 49.3 26.2 0.0 0.0 0.0 172.4 221.7 247.9 247.9 247.9 247.9 2,438 3,058 1,762 0 0 0 9,317 12,375 14,137 14,137 14,137 14,137	oct 04- Oct 05- Oct 06- Oct 07- Oct 08- Oct 09- Oct 09- Oct 09- Oct 08- Oct 08- Oct 09- Oct 09- Oct 08- Oct 09- Oct 08- Oct 08- Oct 09- Oct 08- Oct 08	Joct 04- Oct 05- Oct 06- Oct 06- Oct 08- Oct 09- Sep 05 Sep 07 Sep 08 Sep 09 Sep 10- 93.6 92.9 26.2 44.1 88.4 0.0 268.1 361.0 387.2 431.3 519.7 519.7 5.819 6,170 1,887 3,347 7,456 0 15,773 21,943 23,830 27,177 34,632 34,632	Det 04- Oct 05- Oct 06- Oct 07- Oct 08- Oct 09- Sep 05 Sep 06 Sep 07 Sep 08 Sep 09 Sep 10 274.5 385.1 214.4 88.2 176.8 0.0 970.6 1,355.8 1,570.2 1,658.4 1,835.2 1,835.2 37,626 414,817 241,190 51,741 291,089 0 31,223 2,546,040 2,787,229 2,838,970 3,130,059 3,130,059
Oct 03- Oct 04- Sep 04 Sep 05 42.1 42.0 130.4 172.4 2,308 2,438 6,879 9,317	EOC: LABOR SAL Oct 03- Oct 04- Sep 04- Sep 05 86.2 93.6 130.3 223.9 3,468 3,989 5,144 9,134	EOC: LABOR SAL Oct 03- Oct 04- Sep 04 Sep 05 86.2 Sep 05 174.5 268.1 5,059 5,819 9,954 15,773	Oct 03- Oct 04- Sep 04 Sep 05 238.7 274.5 696.1 970.6 278,618 837,626 1,293,597 2,131,223
Oct 01- Oct 02- Sep 02 Sep 03 0.0 88.3 0.0 88.3 0 4,571	Class: S ₁ Cot 01- Oct 02- Sep 02 Sep 03 0.0 44.1 0.0 1,676 0 1,676	Class: Ss. Oct 01- Oct 02- Sep 02 Sep 03 0.0 88.3 0.0 4.895 0 4,895	Oct 01- Oct 02- Sep 02 Sep 03 0.0 397.4 0.0 1,014,979 0 1,014,979
Oct 00- Sep 01 0.0 0.0 0	RAD TECH Overtime: Oct 00- Sep 01 0.0 0.0 0	SAFETY ENGINEER Overtime: Oct 00- Sep 01 0.0 0.0	Oct 00- Sep 01 0.0 0.0 0.0
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Res Dept: 949 Res Dept: 949 Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Resource: S&HENG Res Dept: 949 Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	GRAND TOTALS: Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:

PROJECTS CONTROLS ESTIMATING SERVICES

August 15, 2001

PROJECT DESCRIPTION: Baseline OSDF - Infrastructure Construction

WBS NUMBER: 1.1.C.C

PROJECT ENGINEER: W. Zebick **ESTIMATOR:** D.Usborne, R. Smolin

ESTIMATE NUMBER: C2-01-05-08 - (13, 14, 15, 16, 17, 18, 19) R1

BASIS OF ESTIMATE

Verbal Scope	\boxtimes	P & ID's		Work Plan	
Drawings		Equipment List		Site Walk	
Sketches		Specifications		Eng. Mtg.	\boxtimes
Flow Diagrams		Written Scope	\boxtimes	Estimate	

TYPE OF ESTIMATE:

Change Proposal		Government	
Plan/Feasibility		Conceptual	
Construction		Title I Design	
Budget	\boxtimes	Independent	

BASIS OF ESTIMATE:

These estimates were prepared for the 2001 Baseline cost of the OSDF Infrastructure Construction, Charge Number CBSP1.

Work encompasses: the relocation of the access control facility including sitework, underground utilities, and electrical; the moving and storage of T96, T98, and T125; contaminated access road roadwork; purchase and installation of a new break trailer; a new equipment wash facility and sediment basin; reinstallation of T96, T98, and T125; phase I, II, and III of the temporary leachate removal; relocation of stockpiles; powering and relocation of air monitors; expansion of OMTA container area; construction of a laydown area, a new construction water well, D&D of wheel wash; removal of interim leachate line, and D&D of OSDF infrastructure.

PROJECTS CONTROLS ESTIMATING SERVICES

August 15, 2001

PROJECT DESCRIPTION: Baseline OSDF – Infrastructure Construction

WBS NUMBER: 1.1.C.C

PROJECT ENGINEER: W. Zebick **ESTIMATOR:** D.Usborne, R. Smolin

ESTIMATE NUMBER: C2-01-05-08 - (13, 14, 15, 16, 17, 18, 19) R1

Each estimate indicates the work to be performed for each year involved. Revisions for each FY are as noted:

C2-01-05-08-13 R1 for FY03 C2-01-05-08-14 R1 for FY04 C2-01-05-08-15 R1 for FY05 C2-01-05-08-16 R1 for FY06 C2-01-05-08-17 R1 for FY07 C2-01-05-08-18 R1 for FY08	Change surveying to \$25,000. Change surveying to \$3,000. Delete trailer related items. Delete trailer related items, change duration to 1 month,
C2-01-05-08-19 R1 for FY09	and reduce mob/demob equipment items to one. Change surveying to \$3,000. Delete trailer related items.

PROJECTS CONTROLS **ESTIMATING SERVICES**

August 15, 2001

PROJECT DESCRIPTION: Baseline OSDF - Infrastructure Construction

WBS NUMBER: 1.1.C.C

PROJECT ENGINEER: W. Zebick ESTIMATOR: D.Usborne, R. Smolin

ESTIMATE NUMBER: C2-01-05-08 - (13, 14, 15, 16, 17, 18, 19) R1

ESTIMATE ASSUMPTIONS
EXECUTION: This project is to be performed on a 50-hour week, 10 hours a day. This project is to be performed on a 40-hour week, 8 hours a day. Premium time allowed.
WAGE RATES: ☐ Wage rates within this estimate are based on Project Labor Agreement rates, effective October 2000 and are considered FY01 dollars for estimating. ☐ Wage rates within this estimate are based on FF Support Contractor FSC 645 wage rates, effective January 30, 2001 and are considered FY01 dollars for estimating. ☐ Wage rates within this estimate are based on FF FTE Planning Labor Rates FY01.
ENGINEERING:
CONSTRUCTION MANAGEMENT: N/A Construction Management dollars provided by the Project Engineer. Construction Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.
PROJECT MANAGEMENT: N/A Project Management dollars provided by the Project Engineer. Project Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

PROJECTS CONTROLS ESTIMATING SERVICES

August 15, 2001

WBS NUMBER: 1.1.C.C
PROJECT ENGINEER: W. Zebick
ESTIMATOR: D.Usborne, R. Smolin
ESTIMATE NUMBER: C2-01-05-08 - (13, 14, 15, 16, 17, 18, 19) R1
WASTE PROGRAM MANAGEMENT:
N/A Note: Decision Management dellaws associated by the Decision Fraction of
Waste Program Management dollars provided by the Project Engineer.
PRODUCTIVITY:
A productivity factor has been developed and applied to the unit man-hours derived from MEANS Richardson, NECA, and or any other published estimating source. See attachment APPENDIX "A and APPENDIX "B".
ESCALATION:
Escalation costs are excluded from the target estimate. The escalation costs are calculated within
the Micro-Frame computer system according to the plan for rebaselining.
UNIT RATES:
Unit man-hours, equipment and material dollars are based on Richardson, MEANS, NECA, and other published rates.
G & A (HO EXPENSE):
G & A are excluded from the target estimate. The G & A cost are calculated within the Micro-Frame computer system according to the plan for rebaselining.
HEALTH PHYSICS:
N/A
RISK BUDGET:
N/A
CONTINGENCY:
N/A

Fluor Fernald, Inc.

PROJECTS CONTROLS ESTIMATING SERVICES

August 15, 2001

PROJECT DESCRIPTION: Baseline OSDF – Infrastructure Construction

WBS NUMBER: 1.1.C.C

PROJECT ENGINEER: W. Zebick **ESTIMATOR:** D.Usborne, R. Smolin

ESTIMATE NUMBER: C2-01-05-08 - (13, 14, 15, 16, 17, 18, 19) R1

ESTIMATE INCLUSIONS & EXCLUSIONS

INCLUSIONS:

- Premobilization & Mobilization.
- Demobilization.
- Labor hours.
- Material dollars.
- Equipment dollars for operating expenses @ 85% efficiency, and rental on a monthly basis.
- Premium time.
- Labor resources, material dollars, construction equipment resources, durations, all quantities were provided by the project team.

EXCLUSIONS:

- Permits and fees.
- FF G & A (Home Office Expense).
- Construction Management.
- Any second tier subcontract costs.
- Project Management dollars.
- Waste Management dollars.
- Subcontractor's support and supervision.
- Subcontractor's training.

ESTIMATE SUMMARY SHEET

PROJECT:

OSDF BASELINE - Infrastructure FY03 R1

ESTIMATE #: C2-01-05-08-13-R1 CLIENT: WBS #:

DOE 1.1.C.C FLUOR FERNALD

DATE:

15-Aug-01 ESTIMATOR: RIS/DU

LOCATION: FERNALD TASK NO.: CBSP1

ITEM DECODIDATION	2 # // 2	DATE	LADODE	CICE	BAATIL 6		CBSP1
ITEM DESCRIPTION	M/H	RATE	LABOR \$	S/C\$	MAT'L\$	EQUIP. \$	TOTAL \$
Insurance & Bond				\$25,160		·	\$25,160
Task 1 - Submittals			\$1,010	\$25,100	\$18,000		\$19,010
Overhead and Profit			\$1,010	\$149,770	\$10,000		\$149,770
MOBILIZATION	162		\$3,700	\$34,100	\$1,800	\$1,000	\$40,600
Task 2 - Relocate Access Control Facility	7,035		\$171,580	\$7,000	\$1,800	\$1,000	\$40,800 \$443,820
	· • • • • • • • • • • • • • • • • • • •			\$7,000	1		
Task 3 - Phase II Temp Leachate Removal	1,511		\$34,400		\$130	\$60,690	\$95,220
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			ļ			j	
							Not Donotino
Project Staffing			İ				Not Required
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DEMOBILIZATION	430		\$9,800	\$2,400			\$12,200
			1				
·			l				
DIRECT FIELD COSTS TOTAL	9,138	\$24.13	\$220,490	\$218,430	\$154,810	\$192,050	\$785,780
DIRECTTILED COOTS TOTAL	2,130	Ψ£-7.10	QZZ0,430	QZ10,400	\$104,010	\$102,000	\$ 7.00,7.00
SUPERVISION - CONTRACTOR		1	ı	3			
SUPERVISION - CONTRACTOR	-	-	-		\$3,300		\$3,300
SMALL TOOLS & CONSUMABLES		-	-		\$3,300		\$3,300
SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL		-	-		\$3,300		\$3,300
SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES incl w/Mobilization	- - 178	- -	- - \$4 300				
SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES incl w/Mobilization TEMPORARY UTILITY HOOK-UP incl w/Mobilization	- - 178	-	- - \$4,300		\$3,300 \$2,300		\$3,300 \$6,600
SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization JOB CLEAN-UP ind w/Job Close-out	- - 178	-	- - \$4,300 -				
SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES incl w/Mobilization TEMPORARY UTILITY HOOK-UP incl w/Mobilization JOB CLEAN-UP incl w/Job Close-out PER DIEM / SUBSISTANCE	- - 178 -	-	- - \$4,300 -				
SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES incl w/Mobilization TEMPORARY UTILITY HOOK-UP incl w/Mobilization JOB CLEAN-UP incl w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C incl w/Submittals	- - 178 -	-	- - \$4,300 -				
SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES incl w/Mobilization TEMPORARY UTILITY HOOK-UP incl w/Mobilization JOB CLEAN-UP incl w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C incl w/Submittals CERCLA - TRAINING incl w/Submittals	-	-	- - \$4,300 -				
SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES incl w/Mobilization TEMPORARY UTILITY HOOK-UP incl w/Mobilization JOB CLEAN-UP incl w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C incl w/Submittals CERCLA - TRAINING incl w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su	-	-	-				\$6,600
SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES incl w/Mobilization TEMPORARY UTILITY HOOK-UP incl w/Mobilization JOB CLEAN-UP incl w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C incl w/Submittals CERCLA - TRAINING incl w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS	-	-	- \$4,300 - \$128,100				
SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES incl w/Mobilization TEMPORARY UTILITY HOOK-UP incl w/Mobilization JOB CLEAN-UP incl w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C incl w/Submittals CERCLA - TRAINING incl w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT	-	-	-				\$6,600
SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES incl w/Mobilization TEMPORARY UTILITY HOOK-UP incl w/Mobilization JOB CLEAN-UP incl w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C incl w/Submittals CERCLA - TRAINING incl w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND	-	-	-		\$2,300	\$11,500	\$6,600 \$128,100
SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES incl w/Mobilization TEMPORARY UTILITY HOOK-UP incl w/Mobilization JOB CLEAN-UP incl w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C incl w/Submittals CERCLA - TRAINING incl w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX		-	- \$128,100 - - -		\$2,300 \$9,600		\$6,600 \$128,100 \$21,100
SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES incl w/Mobilization TEMPORARY UTILITY HOOK-UP incl w/Mobilization JOB CLEAN-UP incl w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C incl w/Submittals CERCLA - TRAINING incl w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX INDIRECT FIELD COSTS TOTAL	- - - - - 178		\$128,100 - - - - \$132,400	\$249.420	\$2,300 \$9,600 \$15,200	\$11,500	\$6,600 \$128,100 \$21,100 \$159,10 0
SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES incl w/Mobilization TEMPORARY UTILITY HOOK-UP incl w/Mobilization JOB CLEAN-UP incl w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C incl w/Submittals CERCLA - TRAINING incl w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX		- - - - - - - - -	- \$128,100 - - -	\$218,430	\$2,300 \$9,600		\$6,600 \$128,100 \$21,100
SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES incl w/Mobilization TEMPORARY UTILITY HOOK-UP incl w/Mobilization JOB CLEAN-UP incl w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C incl w/Submittals CERCLA - TRAINING incl w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX INDIRECT FIELD COSTS TOTAL	- - - - - 178		\$128,100 - - - - \$132,400		\$2,300 \$9,600 \$15,200	\$11,500	\$6,600 \$128,100 \$21,100 \$159,10 0

ES'	TIMATE SUMM	ARY SHE	EET			
PROJECT: OSDF BASELINE - Infrastructure FY03 R1					DATE:	15-Aug-01
ESTIMATE NO. C2-01-05-08-13-R1	FACTOR	R S			ESTIMATOR:	RIS/DU
CLIENT: DOE					LOCATION:	FERNALD
WBS NO.: 1.1.C.C					TASK NO.:	CBSP1
FIXED PRICE (LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE\$	TOTAL \$
DFC DOLLARS	\$220,490	\$218,430	\$154,810	\$192,050		\$785,780
IFC COST FACTOR	1.6005		1.0362	1.0000	-	
BOND + OVERHEAD & PROFIT COST FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
SALES TAX	-	-	1.0600	1.0600	1.0600	
DIRECT FIELD COST FACTOR =	1.6005	1.0000	1.0983	1.0600	1.0600	
BASE ESTIMATE \$'S	\$352,890	\$218,430	\$170,035	\$203,573		\$944,928
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
TARGET ESTIMATE FACTOR	1.6005	1.0000	1.0983	1.0600	1.0600	
FPS TARGET ESTIMATE (FY00 \$)	\$352,890	\$218,430	\$170,035	\$203,573		\$944,928

NOTE:

IF THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

	ES1	TIM.	TE SUMN	ARY SHE	EET			
PROJECT:	OSDF BASELINE - Infrastructure FY03 Ri					•	DATE:	15-Aug-01
ESTIMATE NO			ECT FIELD	1			ESTIMATOR:	RIS/DU
CLIENT:	DOE	W.	FACT	ORS			LOCATION:	FERNALD
WBS NO.: PAY ITEM NO.	1.1.C.C DESCRIPTION		LABOR \$	S/C \$	MAT'L.\$	EQUIP. \$	TASK NO.: PPE \$	CBSP1 TOTAL \$
PATTIEW NO.	DESCRIPTION				E MAT'L.\$'S)-		FFES	TOTALS
	Insurance & Bond			25160				
				\$25,160				\$25,160
	Table Outroited		4040		40000			
	Task 1 - Submittals		1010 \$1,620		18000 \$19,770			\$21,390
			01,020		V 10,710	,		42.,000
	Overhead and Profit			149770		,		
	•			\$149,770				\$149,770
	MOBILIZATION		3700	34100	1800	1000		
			\$5,920	\$34,100				\$43,060
	Task 2 - Relocate Access Control Fac		171580	7000	134880	130360		
Ì	Task 2 - Nelocate Access Control Fac		\$274,610	\$7,000				\$567,930
	· ·				•			
	Task 3 - Phase II Temp Leachate Remova	ıl .	34400		130			6440.520
			\$55,060		\$140	\$64,330		\$119,530
1								
	ł							
ļ								
	1							
	Project Staffing							
1								
	DEMOBILIZATION		9800	2400			12200	
			\$15,680	\$2,400				\$18,080
TOTAL DIREC	T FIELD COSTS W/FACTORS		(FY01 DOL	LARS)	<u> </u>	L		\$944,920
			11.101.000					4044,020

		•

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY03 R1 ESTIMATE NO.: C2-01-05-08-13-R1 CLIENT: DOE WBS NO.: 1.1.C.C

FLUOR FERNALD

TOTAL		\$25,160	\$19,010	\$149,770	\$40,600	\$443,820	\$95,220	Not Required	\$12,200	ST85,780
EQUIP					\$1,000	\$130,360	\$60,690			218,430 3154,810 376 192,050
MAT'L			\$18,000		\$1,800	\$134,880	\$130			154,810
S/C		\$25,160		\$149,770	\$34,100	\$7,000			2,400	218,430
LABOR			\$1,010		\$3,700	\$171,580	\$34,400		008'6	220,490
	Equip									S SURPLEY
COST / UNIT	Mati									ACM CONTO
CO	Labor S/C		·							
	Rate La					•				-37 packets or
MAN-HOURS	Total				162	7,035	1,511		430	9138
MA	Cuit									A947.1748.
TINO								ired		LOT
ΩTY				·				Not Required		1. LOT
SUMMARY	これのおり 遊りの かっかいかい ケ	Insurance & Bond	Task 1 - Submittals	Overhead and Profit	MOBILIZATION	Task 2 - Relocate Access Control Facility	Task 3 - Phase II Temp Leachate Removal	Project Staffing	DEMOBILIZATION	ನ್ನಿಯಾಗಿಗಳು Subtotal Direct Cost ನಿಲ್ಲಾಟ್ ನಿರ್ಣ
ITEM	ò									100 (No.

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY03 R1 ESTIMATE NO.: C2-01-05-08-13-R1 CLIENT: DOE WBS NO.: 1.1.C.C

FLUOR FERNALD

_	12.								 			_
TOTAL	1994 CD 488	\$25,160	\$19,010			\$19,010	\$149,770					
EQUIP	日本の大学を持つ					-						
MAT'L			\$18,000			\$18,000						
S/C		\$25,160					\$149,770					
LABOR			\$1,010			\$1,010						
	Equip											
LINI	Mati		18,000									
COST/UNIT	S/C	COST THRU OH & P			·.				·	***		
	Labor							-				
s	Rate		50.62						,			
MAN-HOURS	Total		20	· · · · · · · · · · · · · · · · · · ·		20						
Ŕ	ži:S		20				20%				·	
TINO			Ą									
QTY												
Insurance & Bond, OH & P		Insurance & Bond Performance bond Insurance Sub-total 2.8%	Task 1 - Submittals Purchase 12 x 60 change trailer & HVAC			Sub-total	Overhead and Profit					
ITEM	Š.		<u> </u>				OI		 			-

ACTIVE AND THE EVAL DOLLARS

DETAIL ESTIMATE WORKSHEETS

FLUOR FERNALD PROJECT: OSDF BASELINE - Infrastructure FY03 R1
ESTIMATE NO.: C2-01-05-08-13-R1
CLIENT: DOE
WBS NO.: 1.1.C.C

Mobilization & Demobilization	OTY	LINIT	W	MAN-HOURS	5		COST/UNIT	UNIT		LABOR	S/C	MAT'L	EQUIP	TOTAL
STATE OF STA	100	\$20 March	Cnit	Total	Rate	Labor	s/c	Mati	Equip	数にある。	表 からののかが	建筑等 金型制度	adjust design specia	The Control of
MOBILIZATION														
ቘ.	7	8 8					350				\$3,800			\$3,800
Support trailer Install Utilities		rs E	40	40	22.69		3	1,000	200	\$900	\$2,120	\$1,000	\$500	\$2,400
Survey and Engineering Controls	-	S					25,000				\$25,000			\$25,000
Other misc. requirements as required.	_	rs	80	80	22.69			200	200	\$1,800		\$500	\$500	\$2,800
Portable tollets 2 ea	7	MTH					. 85				\$390			\$390
Potable water, Allow 5jug/mth, \$8/jug	_	MTH					12	40.00			\$80	\$300		\$380
Mobilize contractor equipment	12	EA	3	42	23.64		200			\$990	\$2,400	١		\$3,390
MOBILIZATION			•	162						\$3,700	\$34,100	\$1,800	\$1,000	\$40,600
					·									
DEMOBILIZATION Complete Punch List items.	-	SI	20	20	22.69					\$500				\$500
Remove Trailer and Change Facilities.	-	SI	20	50	22.69					\$500				\$500
Remove all Utilities.	12	LS.	9 9	120	22.69					\$500				\$500
Loadout contractors equipment.	12		28	240	22.69		200			\$5,400	\$2,400			\$7,800
Other area requirements.		rs	₽	9 5	22.69					\$200	42 400			\$200
DEMOBILIZATION				000		, .				000	64,746 004,746			77.200
Section & Demobilization	1.50 B 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		· 10年2月 10年2日	265	製物を	7.6°X.3	1800	60000	是1000000	13,495	13,495 36,495 485 1,800			1,000

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY03 R1 ESTIMATE NO.: C2-01-05-08-13-R1

DOE CLIENT: WBS NO.:

1.1.C.C

FLUOR FERNALD

ITEM	Task 2 - Relocate Access Control Facility	QTY	UNIT		MAN-HOURS			COST/UNIT	TINI		LABOR	S/C	MAT'L	EQUIP	TOTAL
ġ	· 有一一一 · 一 · · · · · · · · · · · · · · ·		100	S E	Total	Rate	Labor	S/C	Mati	Equip					And the second in the
	Install Surface Water Mqt.& Erosion Control														
	Silt fence	1000	<u>Ľ</u>						0.30				\$300		
	Construction fence	1000	<u>"</u>	0.04	40	23.64			1.05		\$950		\$1,050		\$2,000
	Signage	1	<u>.</u> ڌ	. ;	- ;				200.00			•	\$200		\$200
ا ۵			Days	<u> </u>	2 5	27.03					350				000,13
۵	Laborers 2		Days	2	190	22.65					\$2,260				22,260
۵	Laborer Foreman 1	_	Days	<u></u>	20	23.75					\$1,190				\$1,190
۵	Cat TH83 forklift 1	S.	Days	9	20	27.03	·			279.41	\$1,350			\$1,400	\$2,750
	Removal & Storage of Trailers T96, T98, T	T125													
	Trailer mower w/ truck	- 	č					2,000	-			\$2.000			\$2,000
•		- \$	3 2	-	200	22.65		2,1			64 530				\$4 530
י כ	Laborers		Cays Cays	2 9	007	26.03					000				1
۵ ا	eman		nays	2 9	90	23.73					92,300				000,24
۵	Carpenters 2		Days	2	200	25.10				-	070'04				020,04
۵	Cat TH83 forklift 1	6	Days	9	9	27.03	-			279.41	\$2,700			\$2,790	\$5,490
	Install Underground Utilities														
	Excav trench, 2" PVC water line w/ 8"x2"Tee														
۵	Laborers 11	_	Days	9	20	22.65					\$450				\$450
۵	Cat 416 B backhoe	7	Days	9	20	27.03				202.98	\$540			\$410	\$950
	Install 2" PVC water line	200	"						1.62				\$420		\$420
٥	Pipefitters 2			2	4	22.65					\$910				\$910
	VC water line			-											
2	l aborers 2		Davs	10	40	22.65					\$910				\$910
2	oreman	2	Davs	9	20	23.75					\$480				\$480
ء د	Cot 416 B hackhoo		Dave	- 5	2	27 03				202 98	\$540			\$410	0268
ב	Cal 4 to B backing	1 (2 2	2	3	3				172.04) }		'	0100	964
	Compactor, walk benind	N	Days							46.0				Occ +	0000
	Excav trench, 36" CMP			**************************************											
۵	Laborers 1	7	Days	9	20	22.65					\$450				\$450
٥	Cat 416 B backhoe 1	7	Days	5	20	27:03				202.98	\$540		-	\$410	\$950
	Place sand bedding and	160	Tons						00.9				\$480		\$480
	Install 36" CMP	9	<u>"</u>						29.50				\$2,950		\$2,950
۵	Laborers 2		Days	9	4	22.65					\$910				\$910
۵	Laborer Foreman 1	2	Days	9	22	23.75					\$480				\$480
	Cat 416 B backhoe	7	Days	5	20	27.03				202.98	\$540			\$410	\$950
	BF trench for 36" CMP														
۵	Laborers 2	-	Days	10	20	22.65					\$450				\$450
۵	Laborer Foreman 1	-	Days	9	9	23.75	-				\$240				\$240
۵	Cat 416 B backhoe	-	Days	<u></u>	9	27.03				202.98	\$270			\$200	\$470
	Compactor walk hehind	-	Davs							173.94				\$170	\$170
	Compacior, was being	•	2											·	•
l						1	1	1	1	1	7				

DETAIL ESTIMATE WORKSHEETS

FLUOR FERNALD PROJECT: OSDF BASELINE - Infrastructure FY03 R1
ESTIMATE NO.: C2-01-05-08-13-R1
CLIENT: DOE
WBS NO.: 1.1.C.C

TOTAL	医含量医疗 医动			\$1,810	\$950	\$1,890	\$3,090	\$1,810	\$1,890	\$1,460		\$1,810	0068	\$700				\$2,260	\$1,190	\$3,900	\$4,710	\$3,640		\$7,800	\$9,430	\$12,400	0,0	\$9,060	\$2,380	\$7,800	\$9,430	\$6,010	\$8,040	\$1,740	\$7,290	\$12,000	\$710	\$78,300	\$5,440	\$2,850	\$14,550	\$9,020	\$2,550
EQUIP						\$810			\$810	\$1,460			-	\$700	· · · · · · · · · · · · · · · · · · ·					\$2,550	\$3,360	\$2,500		\$5,100	\$6,730	29,700	000,74			\$5,100	\$6,730	\$3,310	\$5,340	\$1,740	000'64				-		\$11,310	\$4,970	\$1,750
MATIL	WEST CO.						\$3,090																												000	\$12,000		\$78,300					
OR S/C	第二年的第三章的第三章的第三章			\$1,810	\$950	\$1,080		\$1,810	\$1,080			\$1,810	000	080,1%		_		\$2,260	\$1,190	\$1,350	\$1,350	\$1,140		\$2,700	\$2,700	\$2,700		090'6\$	\$2,380	\$2,700	\$2,700	\$2,700	\$2,700		082,240	4 360	5710		\$5,440	\$2,850	\$3,240	\$4,050	\$800
LABOR	Equip (25.00)			·s		202.98				365		<u>`</u>	•	173.94				-				499.78				970.23				510.32					488.78		•		₩				499.78
COST/UNIT	S/C Mat'l						10.29																				-									0.08		13.05					
	e Labor			22.65	23.75	27.03		22.65	27.03			22.65	23.75	27.03				22.65	23.75	27.03	27.03	22.86		27.03	27.03	27.03	00.	22.65	23.75	27.03	27.03	27.03	27.03		22.86		23.75		22.65	23.75	27.03	27.03	22.86
MAN-HOURS	Total Rate	_		80 22	40 23	40 27			40 27					40 27								50 22				100 27		400 22					100 27		100		3 6		240 22				35 23
MAN	Unit	-		10	9	9		5	9			9 9	9	0.				<u></u>	9	9	9	0		9	•	9 9	2	-01	9	9	0	0	9		2		5 5	2	9	9	9	<u></u>	9
LINO.	Tasail.			Days	Days	Days	<u>ٿ</u>	Days	Days	Days		Days	Days	Days Days			ò	Days	Days	Days	Days	Days	Շ	Days	Days	Days	% % % ??	Davs	Days	Days	Days	Days	Days	Days	Days	ي د	Days	Tons	Days	Days	Days	Days	Days
ΔTΥ				4	4	4	300	4	4	4		4	4	4 4			2,000	r.	S	ιO.	S	22	3,000	5	9	0	14 00 0	10	9	9	10	5	9	0 :	10	150,000	o «	000.9	12	12	12	15	7
Task 2 - Relocate Access Control Facility		Install Underground Utilities (continued)	Excav trench, 12" HDPE pipe	Laborers 2	Laborer Foreman 1	Cat 416 B backhoe 1	Install 12" HDPE pipe	Pipefitters 2	Cat 416 B backhoe	HDPE welding machine 1	2" HDPE pipe	Laborers 2	Laborer Foreman 1	Compactor, walk behind	Grading of Access Control Facility &	Contaminated Access Road	Excavate - Facility & Road	Laborers 2	Laborer Foreman 1	Cat D6 dozer 1	Cat 613 paddle scraper 1	Cat 613 water wagon 1	BF w/ general fill - Facility & Road	Cat D6 dozer	Cat 613 paddle scraper 1	Cat 825 sheepsfoot compact	Cat 613 Water wagon	Laborers 4	Laborer Foreman 1	Cat D6 dozer	Cat 613 paddle scraper 1	Cat 563 compactor 1	Cat 14G grader	Compactor, walk behind	Cat 613 water wagon	for area stone	Laborers Coroman	Place area stone 8" thk #304	Laborers 2	Laborer Foreman 1	Cat D8 dozer w/ spreader bo 1		Cat 613 water wagon 0.5
ITEM	ŏ.	1		۵	۵	۵		۵	۵			ا ۵	۵	۵				0	۵	_	_	0		_	_	ه ۵				۵	_	_	_	_	_		_			_	۵	_	_

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY03 R1 ESTIMATE NO.: C2-01-05-08-13-R1 CLIENT: DOE WBS NO.: 1.1.C.C

FLUOR FERNALD

ITEM	Tack 7 . Relucate Access Control Facility	OTY	LIND	Ž	MAN-HOURS			COST/UNIT	TIND		LABOR	S/C	MAT'L	EQUIP	TOTAL
Š				i S	Total	Rate	Labor	S/C	Mati	Equip				Constitution of the	
	Power for Access Control Facility &														
	New Equipment Wash														
	Matl: Power feed	-	<u>Lot</u>						25,000					\$25,000	\$25,000
	(includes: 3 poles, 500 LF wire, and														-
	electrical equipment)														
۵	Electricians 2	9	Days	6	200	24.89					\$4,980				\$4,980
۵		9								\$75.00				06/\$	09/\$
	Security lighting, 4 pole fixtures	-	ē						3,000					\$3,000	\$3,000
۵	Electricians 2	ς,	Days	9	100	24.89					\$2,490				\$2,490
۵	Bucket truck	S.	Days						-	\$75.00				\$380	\$380
	Sediment Basin & Equipment Wash									•					
	Excavate & grade	200	Շ												
٥	Laborers	12	Days	10	240	22.65					\$5,440				\$5,440
۵	-oreman	12	Days	9	120	23.75					\$2,850				\$2,850
۵	Cat D6 dozer 1	5	Days	9	20	27.03				510.32	\$1,350			\$2,550	\$3,900
۵	Cat 416 B backhoe 1	5	Days	9	20	27.03				202.98	\$1,350			\$1,010	\$2,360
۵	Volvo A30 artic. dump truck 1	S	Days	9	20	22.86				594.81	\$1,140				\$4,110
	Matt: Power feed	-	٥						2000.00				\$5,000		\$5,000
	(includes: 2 poles, wire, 2" submersable														
	luipment)														
۵	Electricians 2	2	Days	-	9	24.89		,	;		\$2,490		-		\$2,490
	2" HDPE water supply	200	۳						1.62				\$420		\$420
		100	۳			1			1.30				08.L		\$130
۵	Pipefitters 2	5	Days	9	5	22.65					\$2,260				\$2,260
	Equipment wash materials														
	RR ties	20	ea						26.30				\$530		\$530
	Geomembrane	4500	SF						0.25				\$1,130		\$1,130
	Geotextile material	3000	SF						0.08				\$240		\$240
	#57 area stone	300	Tons						12.00				\$3,600		\$3,600
	Wall support posts 4x6, 12' lg ea, 8' c/c	18	ea						22.20				\$400		\$400
	SIS	800	R.						2.87				\$2,300		\$2,300
۵	Laborers	9	Days	9 9	200	22.65					\$4,530				\$4,530
۵	eman	9	Days	2 :	90 5	23.75					\$2,380				92,360
۵		10	Day	₽ :	200	25.10				000	\$5,020			3	020,020
۵	Cat 416 B backhoe 0.5	0.		2	2	27.03				202.38	000%		-	0.0	92,300
	, 6' H w/ barbed wire	300	ے ح	•					13.95				\$4,190		34,190
٥			Days	2 9	2 5	22.65					\$1,130				91,130
ا ۵	Ironworkers	0 4	Days	2 5	200	20.13				100 01	92,010			6670	0.0,24
ם		3000	Days	2	2	27.03			1 05	0.55	, ,		\$3.150		\$3,150
	t wire construction / lad reflice	9	2 6	10	120	22.65					\$2,720				\$2.720
۵ ۵	Laborer Foreman 1	9	Days	2	9	23.75					\$1,430				\$1,430

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY03 R1
ESTIMATE NO.: C2-01-05-08-13-R1
CLIENT: DOE

1.1.C.C CLIENT: WBS NO.:

FLUOR FERNALD

4		\$5,000	36,790	\$3,560	37,530	38,240		\$1,000		2,260	\$5,000		3,820
TOTAL		ű	•	•,				••	•		9 ~		\$44
EQUIP						\$4,190							130,360
Ē		***************************************											\$
MAT'L										640.00	\$5,000	· .	\$134,880
S/C		\$5,000											000'2\$
LABOR	できる		\$6,790	\$3,560	\$7,530	\$4,050		\$1,000		\$2,260			\$171,580 @ \$7,000 \$134,880 @ \$130,360 \$443,820
	Equip					279.41							A STATE OF THE STA
UNIT	Matil						****			000	2000		Samuel Markell Karalan
COST/UNIT	S/C	5000											Section 5
	Labor											·	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)
S	Rate			23.75		27.03		24.89		22.65			7,035
MAN-HOURS	Total		300			150		4		100			
2	Cuit		10	9	5	10		5	,	9			Socialist (Ass)
TIND		Lot		Days				Days		Days	ž ž		٠
QTY		-	15	15	15	15		2		w +			West 2014
Task 2 - Relocate Access Control Facility		Set UpTrallers T96, T98, T125 & New Break Traller Traller relocating specialist Assist trailer moving	Laborers 2	oreman		Cat TH83 forklift	ook-up	Electricians 2	al hook-up	Pipefitters 2	Matt: Skirting, blocking, steps, etc. Matt: Telephone and communication lines		े अस्ट्रेडिटे प्रेन्टिक Relocate Access Control Facility हे स्थाप हर हे हे हे हे
ITEM	ö		۵	۵	۵	۵		۵		۵			が開会し

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY03 R1
ESTIMATE NO.: C2-01-05-08-13-R1
CLIENT: DOE
WBS NO.: 1.1.C.C

FLUOR FERNALD

ITEM	Task 3 - Phase II Temp Leachate Removal	TIND	MAN-HOURS	JRS		COST/UNIT	UNIT		LABOR	S/C	MAT'L	EQUIP	TOTAL
_		Unit	1 1	Rate	Labor	S/C	Mat'i	Equip	State State Control	是 通過的主义		Programme State of the	
	Task 3 - Phase II Temporary Leachate Removal Excavate and remove old leachate and haul to stockpile area in Cell #3. From estimate, OSDF Phase1 Leachate Remove F' which was prepared for the 01 Rebasline	-7/01	<u>8</u>	816					\$17,930		\$130	\$28,000	\$46,060
	Adjust for quantity differences: Previous estimate = 1100 LF This estimate = 900 LF + 33% of 250 LF = 983 LF Therefore, used 89 % of Previous estimate										,,,,		
	D&D old wash equipment Laborers Laborer Foreman Cat 330 excavator Cat D6 dozer Volvo A30 artic. dump truck 1 D5	Days Days Days Days Days	5555	60 22.65 30 23.75 20 22.86 20 27.03 10 22.86				802.77 510.32 594.81	\$1,360 \$710 \$460 \$540 \$230		-	\$1,610 \$1,020 \$590	\$1,360 \$710 \$2,070 \$1,560 \$820
	Excavate and remove impacted material 2500 C around and under the old access control area. Laborers 1 6 De Cat 330 excavator 1 6 De Cat D6 dozer 1 6 De Volvo A30 artic. dump truck 2 6 De Cat 613 water wagon 0.5 6 De	CY Days Days Days Days	5 5 5 5	60 22.65 60 22.86 60 27.03 120 22.86 30 22.86				802.77 510.32 594.81 499.78	\$1,360 \$1,370 \$1,620 \$2,740 \$690			\$4,820 \$3,060 \$7,140 \$1,500	\$1,360 \$6,190 \$4,680 \$9,880 \$2,190
	Backfill old access control area with clean material Laborers Cat 950 loader Volvo A30 artic. dump truck Cat D6 dozer Cat 825 sheepsfoot compact Cat 613 water wagon 0.5	Days Days Days Days Days Days	66666	30 22.65 30 22.86 90 22.86 30 27.03 30 27.03				802.77 594.81 510.32 970.23	\$680 \$690 \$2,060 \$810 \$810			\$2.410 \$5,350 \$1,530 \$2,910 \$750	\$680 \$3,100 \$7,410 \$2,340 \$3,720 \$1,090
	・ ・			3.5.1011 (S. S.			(2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		\$\$34,400		\$430 St.	069'09\$	○ \$34,400 ◎

ACTIVITY DURATIONS FLUOR FERNALD

PROJECT:

OSDF BASELINE - Infrastructure FY03 R1

ESTIMATE NO. C2-01-05-08-13-R1

CLIENT:

DOE

1.1.C.C WBS NO.:

DATE:

15-Aug-01

ESTIMATOR: RIS/DU

LOCATION: FERNALD TASK NO.: CBSP1

	EST.	START	MID	COMPL.		
ACTIVITY	DATE	DATE	POINT	DATE	ACTIVITY	DURATION
						Each Year
Infrastructure	08-Aug-01	15-May-03	29-Jun-03	14-Aug-03	3.0	MONTHS
Liner			00-Jan-00		0.0	MONTHS
Video & Demob			00-Jan-00	1	0.0	MONTHS
TOTAL					3.0	MONTHS
					3.0	

Days per Schedule

> 32 100.0% 142 0.0% 36 0.0%

210

	DATE of EST. to ACTIVITY DURA	
a.	22.7	MONTHS
b.	0	MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. t ACTIVITY DURA	
0	MONTHS

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

ESTIMATE SUMMARY SHEET

PROJECT:

OSDF BASELINE - Infrastructure FY04

CLIENT:

ESTIMATE #: C2-01-05-08-14

DOE 1.1.C.C

FLUOR FERNALD

DATE:

15-Aug-01

ESTIMATOR: RIS/DU LOCATION: FERNALD

LU	OIL!	CKINA	ALD			CBSP1
M/H	RATE	LABOR\$	S/C\$	MAT'L\$	EQUIP. \$	TOTAL \$
			\$6,460			\$6,46
1	ĺ					Not Require
1 . [İ	\$38,450			\$38,45
78	(\$1,800	\$2,900	\$300	\$1,000	\$6,00
		ł				
[\$3,000			\$3,00
600		\$13,960		\$39,290	\$11,270	\$64,52
360		\$8,720		\$12,000	\$1,430	\$22,15
540		\$13,320			\$42,870	\$56,19
			}			
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	}	i				Not Require
	l	}	l			
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390	l	\$8,800	\$2,400			\$11,20
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1	1		l			
		1				
					252 552	4007.07
1,968	\$23.68	\$46,600	\$53,210	\$51,590	\$56,570	\$207,97
		1	1	£700		\$70
-	- 1	-		\$700		\$10
-	-	- 1	l		·	
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n · 38	İ	\$900	1	\$500		\$1,40
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//su						
-	-	\$27,100				\$27,10
-	-	-				
-	-	-				
-	-					
1 001		\$28,000		\$4,400		
38	1					
2,006	\$37.18	\$74,600	\$53,210	\$55,990	\$59,970	\$243,77
				\$55,990	\$59,970	
		\$74,600 (FY 01 DC		\$55,990	\$59,970	\$243,77 \$243,80
	78 600 360 540 1,968 38 -	78 600 360 540 1,968 \$23.68 1 38	M/H RATE LABOR \$ 78 \$1,800 600 \$13,960 360 \$8,720 540 \$13,320 390 \$8,800 1,968 \$23.68 \$46,600 - - - 1 38 \$900 - - - - - -	\$6,460 \$38,450 \$2,900 \$3,000 \$	M/H RATE LABOR \$ S/C \$ MAT'L \$ 78 \$1,800 \$38,450 \$300 \$3,000 \$3,000 \$39,290 \$300 \$600 \$13,960 \$3,000 \$39,290 \$12,000 \$12,000 \$12,000 \$13,320 \$2,400 \$12,000 \$1,968 \$23.68 \$46,600 \$53,210 \$51,590 \$700 \$700 \$700 \$500 \$13,320 \$27,100 \$500 \$500	N/H

PROJECT: OSDF BASELINE - Infrastructure FY04					DATE:	15-Aug-01
ESTIMATE NO. C2-01-05-08-14	ACTO	RS			ESTIMATOR:	RIS/DU
CLIENT: DOE WBS NO.: 1.1.C.C					LOCATION: TASK NO.:	FERNALD CBSP1
FIXED PRICE (LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE\$	TOTAL \$
DFC DOLLARS	\$46,600	\$53,210	\$51,590	\$56,570		\$207,970
IFC COST FACTOR BOND + OVERHEAD & PROFIT COST FACTOR	1.6009 1.0000	- 1.0000	1.0233 1.0000	1.0000 1.0000		
SALES TAX	•	-	1.0600	1.0600	1.0600	
DIRECT FIELD COST FACTOR =	1.6009	1.0000	1.0847	1.0600	1.0600	
BASE ESTIMATE \$'S	\$74,600	\$53,210	\$55,957	\$59,964		\$243,732
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
TARGET ESTIMATE FACTOR	1.6009	1.0000	1.0847	1.0600	1.0600	
FPS TARGET ESTIMATE (FY00 \$)	\$74,600	\$53,210	\$55,957	\$59,964		\$243,732

IF THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

	ES	FIMA	TE SUMN	ARY SH	EET			
PROJECT:	OSDF BASELINE - Infrastructure FY04						DATE:	15-Aug-01
ESTIMATE NO.			ECT FIELD	1			ESTIMATOR:	
CLIENT:	DOE	W	FACT	ORS			LOCATION:	FERNALD
WBS NO.: PAY ITEM NO.	1.1.C.C DESCRIPTION		LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	TASK NO.: PPE \$	CBSP1 TOTAL \$
TAT ITEM NO.	Decoral New				E MAT'L.\$'S)-		1120	101/12ψ
	insurance & Bond			6460 \$6,460				\$6,460
				ФО,400				\$0,400
	Task 1 - Submittals				·			
	Overhead and Profit			38450				200 450
	·			\$38,450				\$38,450
	MOBILIZATION		1800	2900	300	1000		AT 1=1
			\$2,880	\$2,900	\$330	\$1,060		\$7,170
	Survevina			3000				
	·			\$3,000				\$3,000
	Electrical for Air Monitors		13960		39290	11270		
			\$22,350		\$42,620	\$11,950		\$76,920
	Electrical for Relocated Air Monitors		8720		12000	1430		
			\$13,960		\$13,020	\$1,520		\$28,500
	Relocate Existing Stockpiles		13320			42870		
			\$21,320		·	\$45,440		\$66,760
								•
					·			
			1					
]	
	Project Staffing							
	Project Staffing							
	DEMORII IZATION							
	DEMOBILIZATION .		8800 \$14,090	2400 \$2,400			11200	\$16,490
			\$1.7,550	+ 2,-100				4.0,.00
TOTAL DIDEC	CT FIELD COSTS W/FACTORS		(FY01 DOL	I ARS)			L	\$243,750
TOTAL DIREC	STREED COOLS WENCHOUS		TETOT DOL	יביווטו				4270,100

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY04 ESTIMATE NO.: C2-01-05-08-14 CLIENT: DOE WBS NO.: 1.1.C.C

FLUOR FERNALD

	\$\$ 000	
6,460	00 000\$	\$300 \$12,000 \$12,000
\$6,460	\$38,450 \$1,800 \$3,000	
	io	₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩
	78	40 00 00 00 00 00 00 00 00 00 00 00 00 0
		540
Not Required		
- TO N		s Air Monitors piles
Insurance & Bond Task 1 - Submittals Overhead and Profit MOBILIZATION		Surveying Electrical for Air Monitors Electrical for Relocated Air Monitors Relocate Existing Stockpiles

DETAIL ESTIMATE WORKSHEETS

FLUOR FERNALD

PROJECT: OSDF BASELINE - Infrastructure FY04 ESTIMATE NO.: C2-01-05-08-14 CLIENT: DOE WBS NO.: 1.1.C.C

QTY UNIT MAN-HOURS COST/UNIT	UNIT MAN-HOURS COST/UNIT	VIT MAN-HOURS COST/UNIT	MAN-HOURS COST/UNIT Total Rate Labor S/C Mat'l	COST/UNIT Rate Labor S/C Mat'l	COST/UNIT Rate Labor S/C Mart	COST/UNIT	ST/UNIT Mat'i	Ē	LABOR	S/C	MAT"L	EQUIP	TOTAL
COST THRU OH & P	COST THRU OH & P	COST THRU OH & P	COST THRU OH & P	COST THRU OH & P	COST THRU OH & P 230712	COST THRU OH & P	<u> </u>	 		\$6,460			\$6,460
Task 1 - Submittals Plans 16 EA 50 800 50.62 Technical submittals 100 EA 5 500 50.62 Site access & GET traing, cnstrct work force 25 EA 18 450 23.64	EA 50 EA 5 500 EA 18 450	50 800 5 500 18 450	800 500 450		50.62 50.62 23.64				\$40,500 \$25,310 \$10,640				\$40,500 \$25,310 \$10,640
7 EA 18 126 4 EA 18 72	EA 18 126 EA 18 72	18 126 18 72	126		33.69 50.00				\$4,240 \$3,600				\$4,24 \$3,60
									6				
Sub-total N.R.	Z. Z.	X.	Z.	N.R.					0440		-		Not Required
Overhead and Profit 20%	20%	20%	50%							\$38,450			\$38,450
		,	,										
						4, ₂ , 4, ₃ ,							

ACKINDACTOR CITING IN EVALUATION ABO

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY04 ESTIMATE NO.: C2-01-05-08-14 CLIENT: DOE WBS NO.: 1.1.C.C

FLUOR FERNALD

TOTAL	San San San		\$500	\$400	\$380 \$4,240	\$6,000	\$3,000	\$500 \$2,700 \$7,800	\$11,200	\$18,710
L			\$500			\$1,000				000
EQUIP			* *			\$1,0				
MAT'L	World William			,	\$300	\$300				\$1,000 ACRES 1,000
S/C	\$45.00 C 10.00 E			\$400		\$2,900	\$3,000	\$2,400		6,790
LABOR					\$1,840	\$1,800		\$500 \$2,700 \$5,400	\$8,800 8,800	10,620
	Equip		500				·			S. 50.544 (S. c.)
COST/UNIT	Mati		1,000		40.00					18 18 18 18 18 18 18 18 18 18 18 18 18 1
COS	S/C	550		88	200		3,000	200		
L	Labor									18.00
RS RS	Rate		22.69		23.64			22.69 22.69 22.69 22.69 22.69		8 24.9
MAN-HOURS	Total				3 78	78		20 20 20 10 120 20 20 20 20 20 20 20 20 20 20 20 20 2		468
L	Š		40 80				•			
INI		W W	S S		12 EA EA		<u></u>	1 LS LS LS LS CS CS CS CS CS CS CS CS CS CS CS CS CS		3 44 WAG
ρŢΛ										(1) (4) (A) (A) (A)
Mobilization & Bemphilization	TOTAL STATE OF THE	MOBILIZATION S/C Office Trailer Support trailer 1 reqd	Install Utilities Other misc requirements as require		D Potable water, Allow 5jug/mth, \$8/jug D Mobilize contractor equipment		Surveying	DEMOBILIZATION D Complete Punch List items. D Remove Trailer and Change Facilities. D Remove all Utilities. mC Decontaminate Equipment. D Loadout contractors equipment.	Other area requirements. DEMOBILIZATION	報報報報報 Mobilization & Demobilization 総数数
L		<u> </u>						220 80	_	

DETAIL ESTIMATE WORKSHEETS

FLUOR FERNALD PROJECT: OSDF BASELINE - Infrastructure FY04 ESTIMATE NO.: C2-01-05-08-14 CLIENT: DOE WBS NO.: 1.1.C.C

DATE: 15-Aug-01 ESTIMATOR: RIS/DU LOCATION: FERNALD TASK NO.: CBSP1

ITEM	Cobie & Air Monitore	OTV	TINE	MA	SAI TOH NAM	l "		TINIT	FINIT		IABOR	S/S	MAT	FOLIE	TOTAL
Š.				Unit	Total	Rate	Labor	S/C	Matil	Equip	数ののからなるの	1	Sand State State		graph and a second state
L			r	H	Ī				l						

	- i														
	Electrical for Air Monitors				_										
	Power to East side from Air Monitor														
	Power equipment from Air Monitor	_	ĕ						25,000				\$25,000		\$25,000
	Power poles	80	ea										\$4,000		\$4,000
	Transformer	-	ea						900.00	100.00			\$900	\$120	\$1,020
	Cable	2200	<u>_</u>						4.27				\$9,390		\$9,390
	Bucket Truck	128	Ĕ							75.00				\$11,150	\$11,150
	Foreman		Davs	9	300	21.59					\$6,480			,	\$6,480
_	D Electrician		Days	10	300	24.93					\$7,480				\$7,480
	Electrical for Air Monitors			T	009					T	\$13,960		\$39,290	\$11,270	\$64,520
				•							. •				
	Electrical for Relocated Air Monitors														
	Power to East side	_	Lot						10400				\$10,400		\$10,400
	Electricians		Davs	10	100	24.89					\$2,490		•		\$2,490
_			Davs	10	100	22.65					\$2.260				\$2,260
	Operators		Daye	5	2	27.03					\$1350				\$1350
-) u	Days Days	5	3 6	21.50					080.18				41.080
1			26.6	2	3	3			200) 		000		000:10
	Power pole	- 6							200.00				0000		Once
	Cable	2 5	= ;						4.2/	-			\$430	1	\$430
		0.23	ME:	•						2800				\$650	\$650
	Backhoe Cat 416 at 85%		S S	243						α./O			-	43/0	93/0
	Downer to Most side	-	<u> </u>						300				\$300		\$300
	DVC 8" close	- 6							7 40				\$370		\$370
			Dave	10	40	24 89			!		\$1,000				\$1,000
-	Operators		Davs	9	20	27.03					\$540				\$540
)			ME							2800				\$260	\$260
	Backhoe Cat 416 at 85%		Hrs	17						8.70				\$150	\$150
	Electrical for Relocated Air Monitors				360						\$8,720		\$12,000	\$1,430	\$22,150
	Subtotal Direct Cost	T 1/2	5	:	096				•		\$22,680	10/3/20 m		\$51,290 \$12,700	\$86,670

PAGE 4 OF 5

DETAIL ESTIMATE WORKSHEETS

FLUOR FERNALD PROJECT: OSDF BASELINE - Infrastructure FY04 ESTIMATE NO.: C2-01-05-08-14 CLIENT: DOE WBS NO.: 1.1.C.C

Task 5 Relocate Existing Stockpiles 12000 cv 120	(393.0 42,870 48\\ 0.856,190
Construing Stackpiller	42,870
Paricette Estiting Stockpilles	
Referete Estiting Stockpilles 12000 CY Labor S/C Mart Equip Stockpilles 12000 CY Labor S/C Mart Equip Stockpiles 12000 CY Labor S/C Mart Equip Stockpile Labor S/C Mart Equip Stockpile Labor S/C Mart Equip Stockpile Labor S/C Mart Equip Stockpile Labor S/C Mart Equip Stockpile Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/C Mart Equip S/C Labor S/	367.797.734.736
Relective Existing Stockpiles	13,320
Relocate Existing Stockpiles OTY Unit Total Rate Labor S/C	200
Relocate Existing Stockpiles Carrolles	pskitte
Relocate Existing Stockpiles Cory Chris Total Rate Labon	
Relocate Existing Stockpiles QTY Unit Total	- (34846).
Relocate Existing Stockpiles Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpiles St	38.58.54 38.58.54
Relocate Existing Stockpiles Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpiles St	540
Relocate Existing Stockpiles Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpile (12 days) Stockpiles Stockpile Stockpil	Sales Sales
Relocate Existing Stockpiles Stockpile (12 days) Ozer O excavator A30 artic. Dump fruck water wagon	LOT
Relocate Existing Stockpiles stockpile (12 days) tockpile (12 days) tockpile (12 days) tock a water wagon	California of
NO. Task 5 Rel Relocate stock D Laborer CAT 08 dozer CAT 08 dozer CAT 613 wate D Operator D Teamster D Teamster	্ সংগ্রেক্ত করিছে বিশ্বত Subtotal Direct Cost ্ট্রেকটি বিশ্বতি

ACTIVITY DURATIONS FLUOR FERNALD

PROJECT:

OSDF BASELINE - Infrastructure FY04

ESTIMATE NO. C2-01-05-08-14

CLIENT: WBS NO.: DOE 1.1.C.C

DATE: 15-Aug-01 ESTIMATOR: RIS/DU LOCATION: FERNALD TASK NO.: CBSP1

32

142 36

210

100.0% 0.0%

0.0%

Days per Schedule

	EST.	START	MID	COMPL.		
ACTIVITY	DATE	DATE	POINT	DATE	ACTIVITY	DURATION
						Each Year
Infrastructure	08-Aug-01	01-Mar-04	10-Mar-04	19-Mar-04	0.6	MONTHS
Liner			00-Jan-00		0.0	MONTHS
Video & Demob			00-Jan-00		0.0	MONTHS
TOTAL					0.6	MONTHS
					1.0	

DATE of EST. to MID-POINT

			A	CTIVITY DURAT	ION
			a.	31.1	MONTHS
			b.[0	MONTHS
EST.	START	MID	COMPL.		

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. to ACTIVITY DURA	, .
0	MONTHS

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

	•		

ESTIMATE SUMMARY SHEET

PROJECT:

OSDF BASELINE - Infrastructure FY05 R1

ESTIMATE #: C2-01-05-08-15 R1

CLIENT: DOE WBS #: 1.1.C.C

FLUOR FERNALD

DATE:

15-Aug-01

ESTIMATOR: RIS/DU LOCATION: FERNALD

TASK NO.: CBSP1

VVDO #.	ITEM DESCRIPTION	M/H	RATE	LABOR\$	S/C\$	MAT'L\$	EQUIP. \$	TOTAL \$
nsurance & E		1	1		\$19,440			\$19,440
Task 1 - Subi	1							Not Required
Overhead an	1	. 1			\$115,690			\$115,690
MOBILIZATIO	N N	78		\$1,800	\$2,900	\$300	\$1,000	\$6,000
Surveying					\$17,000			\$17,000
301 ve jg					V 1.,000			4, 000
Cable & Air M	tonitors	360		\$8,720		\$12,000	\$1,430	\$22,150
OMTA Conta	ner Area	3,419		\$69,460		\$351,480	\$45,655	\$466,595
ı								
Project Staffir	ng							Not Required
DEMOBILIZA	ATION	390		\$8,800	\$2,400			\$11,200
DEMODICIE	HON			40,000	-,			****
				·				
D	IRECT FIELD COSTS TOTAL	4,247	\$20.91	\$88,780	\$157,430	\$363,780	\$48,085	\$658,075
SUPERVISIO	ON - CONTRACTOR							
	DLS & CONSUMABLES	-	-	-		\$1,300		\$1,300
MISC. EQUI	P. RENTAL	-	-	-				
TEMPORAR	Y FACILITIES incl w/Mobilization	1						,
TEMPORAR	Y UTILITY HOOK-UP incl w/Mobilzation	83	1	\$1,700		\$900		\$2,600
JOB CLEAN	-UP ind w/Job Close-out		1	1				
1	CURCICTANCE	- 1	- 1	- 1	1			
PER DIEM /	•	1	i		1	1		
HEALTH PH	YSICS S/C ind w/Submittals							
HEALTH PH CERCLA - T	YSICS S/C ind w/Submittals RAINING ind w/Submittals							
HEALTH PH CERCLA - TO GET/SITE A	YSICS S/C ind w/Submittals RAINING ind w/Submittals CCESS & JOB SPECIFIC TRAINING w/st							254 000
HEALTH PH CERCLA - T GET/SITE A	YSICS S/C ind w/Submittals RAINING ind w/Submittals	-	<u>-</u>	\$51,600				\$51,600
HEALTH PH CERCLA - T GET/SITE A	YSICS S/C ind w/Submittals RAINING ind w/Submittals CCESS & JOB SPECIFIC TRAINING w/st URDENS & BENEFITS	-	- -	\$51,600 -				\$51,600
HEALTH PH CERCLA - T GET/SITE A PAYROLL B	YSICS S/C ind w/Submittals RAINING ind w/Submittals CCESS & JOB SPECIFIC TRAINING w/st URDENS & BENEFITS	- - -	- - -	\$51,600 - -				
HEALTH PH CERCLA - TO GET/SITE AN PAYROLL B OVERHEAD BOND SALES TAX	YSICS S/C ind w/Submittals RAINING ind w/Submittals CCESS & JOB SPECIFIC TRAINING w/st URDENS & BENEFITS & PROFIT		- - -	- - -		\$22,000		\$24,900
HEALTH PH CERCLA - TO GET/SITE AND PAYROLL BOVERHEAD BOND SALES TAX	YSICS S/C ind w/Submittals RAINING ind w/Submittals CCESS & JOB SPECIFIC TRAINING w/st URDENS & BENEFITS & PROFIT DIRECT FIELD COSTS TOTAL	- - - - 83	- - -	- - - \$53,300		\$24,200	\$2,900	\$24,900 \$80,400
HEALTH PH CERCLA - TO GET/SITE AND PAYROLL BOVERHEAD BOND SALES TAX	YSICS S/C ind w/Submittals RAINING ind w/Submittals CCESS & JOB SPECIFIC TRAINING w/st URDENS & BENEFITS & PROFIT	- - - - 83 4,330	- - - - - \$32.82	- - -	\$157,430		\$2,900	\$24,900 \$80,400
HEALTH PH CERCLA - T GET/SITE A PAYROLL B OVERHEAD BOND SALES TAX INI DIRECT	YSICS S/C ind w/Submittals RAINING ind w/Submittals CCESS & JOB SPECIFIC TRAINING w/st URDENS & BENEFITS & PROFIT DIRECT FIELD COSTS TOTAL			- - - \$53,300		\$24,200	\$2,900	\$51,600 \$24,900 \$80,400 \$738,475

ESTIMATE PERFORMED BY ESTIMATING SERVICES

ES	TIMATE SUMM	ARY SHE	ET			
PROJECT: OSDF BASELINE - Infrastructure FY05 R1					DATE:	15-Aug-01
ESTIMATE NO. C2-01-05-08-15 R1	FACTO	२			ESTIMATOR:	RIS/DU
CLIENT: DOE WBS NO.: 1.1.C.C					LOCATION: TASK NO.:	FERNALD CBSP1
FIXED PRICE !	LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE\$	TOTAL \$
DFC DOLLARS	\$88,780	\$157,430	\$363,780	\$48,085		\$658,075
IFC COST FACTOR	1.6004	-	1.0060	1.0000	-	
BOND + OVERHEAD & PROFIT COST FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
SALES TAX	•	•	1.0600	1.0600	1.0600	
DIRECT FIELD COST FACTOR =	1.6004	1.0000	1.0664	1.0600	1.0600	
BASE ESTIMATE \$'S	\$142,080	\$157,430	\$387,939	\$50,970		\$738,419
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
TARGET ESTIMATE FACTOR	1.6004	1.0000	1.0664	1.0600	1.0600	
FPS TARGET ESTIMATE (FY00 \$)	\$142,080	\$157,430	\$387,939	\$50,970		\$738,419

NOTE:

IF THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

	ES	TIMA	TE SUMN	IARY SHE	ET			
PROJECT:	OSDF BASELINE - Infrastructure FY05 R1			•			DATE:	15-Aug-01
ESTIMATE NO.	C2-01-05-08-15 R1	DIRE	ECT FIELD	COST			ESTIMATOR:	RIS/DU
	DOE	W	/FACT	ORS			LOCATION:	FERNALD
	1.1.C.C						TASK NO.:	CBSP1
PAY ITEM NO.	DESCRIPTION		LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE \$	TOTAL \$
			(ASSIGN OR	PRORATE PP	E MAT L.\$'S)-	>>		
ľ				40440				
	Insurance & Bond			19440 \$19,440				\$19,440
				V ,				
]	Task 1 - Submittals							
	Overhead and Profit			115690				
				\$115,690				\$115,690
	MOBILIZATION		1800	2900	300	1000		·
			\$2,880	\$2,900	\$320	\$1,060		\$7,160
	·							
	Surveving			17000				247.000
				\$17,000		•		\$17,000
	Cable & Air Manitore		8720		12000	1430		
	Cable & Air Monitors		\$13,960		\$12,800	\$1,520		\$28,280
							l	
	OMTA Container Area		69460		351480	45655 \$48,390		\$534,370
	•		\$111,160		\$374,820	\$40,390		φυυ 4,υ1 υ
							'	
						•		
	0					!		
	Project Staffing							
	DEMOBILIZATION		8800				11200	
			\$14,080	\$2,400				\$16,480
TOTAL DIREC	CT FIELD COSTS W/FACTORS		(FY01 DOI	LARS)				\$738,420

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY05 R1
ESTIMATE NO.: C2-01-05-08-15 R1
CLIENT: DOE
WBS NO.: 1.1.C.C

FLUOR FERNALD

TOTAL		\$19,440	Not Required	\$115,690	000'9\$		\$17,000	\$22,150	\$468,595						Not Kequired	\$11,200	\$174.\$658,075
EQUIP					\$1,000	-		\$1,430	\$45,655				,		-		0.00 48,085
MAT'L					\$300			\$12,000	\$351,480								363,780
S/C		\$19,440		\$115,690	\$2,900		\$17,000									2,400	88,780 3157,430 8353,780
LABOR					\$1,800			\$8,720	\$69,460							8,800	_
	I Equip						·			 				 			11 1484
COST / UNIT	/C Mat'l							 		 •		 	· 	 			To the second second
0	Labor		······································					 									ASTAN
S	Rate											 					· 一种产品的
MAN-HOURS	Total				78			360	3,419							390	4247
	Cult							 		 -		 					****
Y			l Not Required					 		 		 		 	Not Required		COT 1 LOT
ατγ			Not R		·					 Para ta ta ta ta ta ta ta ta ta ta ta ta ta				 :	NOT NOT		_
SUMMARY		Insurance & Bond	Task 1 - Submittals	Overhead and Profit	MOBILIZATION		Surveying	Cable & Air Monitors	OMTA Container Area					•	Project Staffing	DEMOBILIZATION	
ITEM	Ñ.																7000000

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY05 R1
ESTIMATE NO.: C2-01-05-08-15 R1
CLIENT: DOE
WBS NO.: 1.1.C.C

FLUOR FERNALD

TOTAL				\$19,440		540,500	525,310	0,640	\$3,600				Not Required			\$115,690		 				 		
10							·				 		Not Re			→			<u> </u>	 		 		
EQUIP																								
MAT'L																				 		 		
S/C N				\$19,440							 			-	9	\$115,690			 	 		 		
_				↔		8	0 9	9 6	2 8		 	3				-		 	 	 		 	-	
LABOR						\$40,5	\$25,3	910,5	\$3,600		ě	000,14												
	Equip																							
NUNIT	Mat'i												,											
COST/UNIT	S/C	COST	OH & P	694134																				
	Labor																					-		
S	Rate								50.00															
MAN-HOURS	Total					800	200	450	2 2				A. A.											
×	Unit					20	3	20 0	<u> </u>							%02								
LINIT									Z Z															
QTY						16	9 6	22 1	- 4															
			1.3%	2.8%				g, cnstrct work force	g, PM, CM etc g, surveyers & others												-			
-		Insurance & Bond	Performance bond	Sub-total	Task 1 - Submittals	Plans	Technical submittals	Site access & GET traing, custrct work force	Site access & GET traing, PM, CM etc. Site access & GET traing, surveyers & others.			-	Sub-total		Overhead and Profit									
ITEM	Š.					۵	۵	ه ۵	۵ ۵									 _	_	 		 		_

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY05 R1 ESTIMATE NO.: C2-01-05-08-15 R1 CLIENT: DOE WBS NO.: 1.1.C.C

FLUOR FERNALD

			\$500	\$500	\$380	\$4,240	000's		\$17,000		\$500	700	\$7,800	\$11,200	710
TOTAL						%	3\$		\$17			Σ	÷ 6	<u>e</u>	15.00 Sec. (\$2.00)
EQUIP	She Paranta		\$500	\$200			\$1,000								25-1-13-780 GOVERNO 300 Military 1900 Session 1825 710
MAT'L	Company of the last				\$300		\$300				•				300
S/C	1.00			\$400	\$80	\$2,400	\$2,900		\$17,000				\$2,400	\$2,400	13 790
LABOR						\$1,840	\$1,800	·.			\$500	62 200	\$5,400	008'88	10 620
	Equip		500		-		-								
COST/UNIT	Mati		-	200	40.00										S. Jackson
SOO	S/C	550 350		85	12 8	200			17,000				200.00		96 20 20 20 20 20 20 20 20 20 20 20 20 20
L	Labor			_						 					100000000000000000000000000000000000000
RS	Rate		22.69	22.68		3 23.64				 	22.69				2.35 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.
MAN-HOURS	Total					3 78	82				50		240		\$20.00 M
Ĺ	Cnit		40			.,	-				20	× ÷	2 2 2		
SN1		0 0 W W	rs	LS		E			ε S				r a a		7. deg 68.5.
ΩTΥ						12					-	÷	12 -		Section 1
Mobilization & Demobilization	大百五 明二郎 等一等一十二十二	MOBILIZATION S/C Office Trailer Support trailer 1 reqd	Install Utilities	Other misc. requirements as required.	Potable water, Allow 5jug/mth, \$8/jug	Mobilize contract	MOBILIZATION		Surveying		DEMOBILIZATION Complete Punch List items. Remove Trailer and Change Facilities.				Service Servic
L			_	٥ ۵	۵ ۵	_					۵ ۵	0 }	500) ************************************	18

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructuro FY05 R1
ESTIMATE NO.: C2-01-05-08-15 R1
CLIENT: DOE
WBS NO.: 1.1.C.C

FLUOR FERNALD

TOTAL			\$10,400	\$2,490	\$2,260	000,14	080,14	\$500	2004	\$370	\$19,530	\$300	\$370	\$1,000	\$540	\$260	\$150	\$2,620	\$22,150
\vdash	11 march								0904	\$370	\$1,020	·				\$260	\$150	\$410	430
EQUIP	Sec. 147 (Sec.) 147, 158								•	. es	\$1,					₩.	S	o	
MAT'L			\$10,400					\$500	000		\$11,330	\$300	\$370					0 2 8 6 7 0	35\$12,000 SECURE \$1,430 REPRESS 22,150
S/C	2000 000 000 000 000 000 000 000 000 00																		
LABOR				\$2,490	\$2,260	000,14	080,14				\$7,180			\$1,000	\$540			\$1,540	\$8,720
	Equip	• -							0000	8.70		, , , , , , , , , , , , , , , , , , , 				2800	8.70		\$3254\$\$
UNIT	Mat'i		10400					500.00	4.27			300	7.40						\$ \$2.80 m
COST/UNIT	S/C																		5.42698453
	Labor																		estimates.
S	Rate			24.89		27.03		,						24.89					24.84ec
MAN-HOURS	Total			100		200					300			40				09	360
2	Č		`	9 9	9 9	2 5	2			43				10	10		17		\$4.50 PM \$6.
LIND								ea =		E E			=			Mg.	Hrs		-LOT:
ΩΤΥ			-	ינט	נהי	o i	o .	- 6				-	20	2		0.09			A. W. W. W. W.
				~	N •	- ,	-		•	85%				8	-	-	82%		
iitors																	1		Cost
Cable & Air Monitors	Sec. 18, 1955.	.	side	õ				ø	24.440	zat 416 a Zat 416 a	side	side	eve	õ		3at 416	3at 416 a	epis :	otal Direct
Çap			Power to East side	Electricians	Laborers	Operators	Foreman	Power pole	Cable	Backhoe Cat 416 at	Power to East side	Power to West side	PVC 8" sleeve	Electricians	Operators	Backhoe Cat 416	Backhoe Cat 416 at	Power to West side	 weightykissisykishishishishishishishishishishishishishi
ITEM	Š.			، ۵	۵ ۵	، د	 _				14	ш		۵	۵			<u> </u>	**************************************

CONTRACTOR - Stated in FY01 DOLLARS

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructuro FY05 R1
ESTIMATE NO.: C2-01-05-08-15 R1
CLIENT: DOE
WBS NO.: 1.1.C.C

FLUOR FERNALD

ITEM	DUTA Contained Area) TO	TINI	MA	MAN-HOLIRS	50	L	TIMILITACO	INIT		IABOR	SIC	MATI	EO! IIP	TOTAL
Š.		diguidate la		Unit	Total	Rate	Labor	s/c	Mat'l	Equip					
L	Task 7														
	Expansion of OMTA container area (15days)											_			
	CAT D8		ž	0.1				-		73.26					
	CAT 950 loader		ž	1.0						65.02					
	Volvo A30		ž	0.5						73.62					
	Truck		Ē	0.5						16.32					
	CAT 613 water wagon		È	0.5						52.81					
	CAT 563 compactor		ž	1.0						40.98					
۵	Operator	150	Ĕ	2.0	300	24.57					\$7,370				\$7,370
۵	Teamster	150	⊭	0.1	150	20.59					\$3,090				\$3,090
۵	Laborer	150	Ĕ	2.0	300	20.59					\$6,180				\$6,180
	Geotextile	153,000	ş						0.08				\$12,240		\$12,240
	Stone #304	6,000	£	•					13.05				\$78,300		\$78,300
		-													
	Task 8														
	Construction Laydown Yard														
	10 acre excavating/grading (20days)														
	Excavate/grading														
	CAT D6	170	¥	1.0						73.26				\$12,450	\$12,450
	CAT 613	170	훋	1.0						83.19				\$14,140	\$14,140
	CAT 563 compactor	170	È	1.0						40.98				\$6,970	\$6,970
۵	Operator	200	È	2.0	400	24.57					\$9,830				\$9,830
	Volvo A30 truck	43	E	2.0						73.62				\$6,260	\$6,260
	CAT 613 water wagon	43	≽	0.5						7.25				\$155	\$155
۵	Teamster	20	ž	2.0	100	20.78					\$2,080				\$2,080
٥	Teamster	100	Ĕ	1.0	100	20.78					\$2,080				\$2,080
۵	Operator	200	Ξ	2.0	400	24.57					\$9,830				\$9,830
۵	Laborer	200	Ĕ	2.0	400	20.59					\$8,240				\$8,240
٥	Laborer	100	E	2.0	200	20.59					\$4,120				\$4,120
	Geotextile	436,000	S						0.08				\$34,880		\$34,880
	Place #304 stone (15 days)	17000	Ę						13.05				\$221,850		\$221,850
-	CAT D8 spreader box	128	Æ	1.0	128										
	CAT 563 compactor	128	ž	0.1	128					40.98				\$5,220	\$5,220
٥	Operator	150	È	2.0	300	24.57					\$7,370				\$7,370
	CAT 613 water wagon	128	ž	0.5	64	,				7.25				\$460	\$460
۵	Laborer	150	È	2.0	300	20.59					\$6,180				\$6,180
	Fence (construction)	2700	=	,					1.56		-		\$4,210		\$4,210
۵	Laborer	20	ž	3.0	150	20.59		-	1		\$3,090				\$3,090
				1					1						
	See the See SubTotal Direct Costs	1	LOT		3,419	:: ·				3	69,460	* 1.45 P. 1	351,480	ાત હ 45,655 વારાણ \$466,595	\$466,595

ESTIMATE SUMMARY SHEET

PROJECT:

OSDF BASELINE - Infrastructure FY06 R1

ESTIMATE #: C2-01-05-08-16 R1

DOE CLIENT: WBS #: 1.1.C.C FLUOR FERNALD

DATE:

15-Aug-01

ESTIMATOR: RIS/DU LOCATION: FERNALD

TASK NO.: CBSP1

ITEM DESCRIPTION	M/H	RATE	LABOR\$	S/C\$	MAT'L\$	EQUIP. \$	TOTAL \$
Insurance & Bond				\$9,290			\$9,29
Task 1 - Submittals	895		\$33,170				\$33,17
Overhead and Profit				\$55,290			\$55,29
MOBILIZATION	158		\$3,600	\$2,900	\$800	\$1,000	\$8,30
							•
Surveying	.		l	\$17,000		ł	\$17,00
							200 45
Cable & Air Monitors	360		\$8,720		\$12,000	\$1,430	\$22,15
Task 9 - Phase III Temporary Leachate Removal	722		\$15,900	600 500	\$2,060	\$23,340	\$41,300
Task 10 - Construction Water Well	100		\$2,260	\$88,580	\$200	\$1,830	\$92,870
Task 11 - Demo No. Wheel Wash @ Impact Matl. Haul	140		\$3,460			\$3,080	\$6,540
l .							
						į	
			1	}		1	
Project Staffing							Not Require
		Į.	ĺ			1	•
		1	}				
]			
DEMOBILIZATION	390		\$8,800	\$2,400			\$11,200
·							
DIRECT FIELD COSTS TOTAL	2,765	\$27.45	\$75,910	\$175,460	\$15,060	\$30,680	\$297,110
SUPERVISION - CONTRACTOR	2,703	\$27.40	\$70,510	\$110,400	\$10,000	\$50,000	V 207,111
SMALL TOOLS & CONSUMABLES	-	_'	-		\$600		\$600
MISC. EQUIP. RENTAL		-	_				
TEMPORARY FACILITIES ind w/Mobilization							
TEMPORARY UTILITY HOOK-UP incl w/Mobilzation		Ī					
JOB CLEAN-UP incl w/Job Close-out			1				
PER DIEM / SUBSISTANCE	-	-	-	1			
HEALTH PHYSICS S/C incl w/Submittals							
CERCLA - TRAINING incl w/Submittals	l					1	
GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su							
PAYROLL BURDENS & BENEFITS	-	-	\$43,300	ĺ			\$43,30
OVERHEAD & PROFIT	-	-	- 1				
BOND	-	-	-				
SALES TAX	-	-	-		\$900	\$1,800	\$2,700
INDIRECT FIELD COSTS TOTAL			\$43,300		\$1,500	\$1,800	\$46,60
DIRECT & INDIRECT FIELD COSTS TOTAL	2,765	\$43.11	\$119,210	\$175,460	\$16,560	\$32,480	\$343,71
DIRECT & INDIRECT FIELD COSTS TOTAL							
TARGET ESTIMATE			(FY 01 DO				\$343,70

ESTIMATE PERFORMED BY ESTIMATING SERVICES

ESTIMA	ATE SUMM	ARY SHE	EET			
PROJECT: OSDF BASELINE - Infrastructure FY06 R1					DATE:	15-Aug-01
ESTIMATE NO. C2-01-05-08-16 R1	FACTO	२			ESTIMATOR:	RIS/DU
CLIENT: DOE					LOCATION:	FERNALD
WBS NO.: 1.1.C.C					TASK NO.:	CBSP1
FIXED PRICE (LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE \$	TOTAL \$
DFC DOLLARS	\$75,910	\$175,460	\$15,060	\$30,680		\$297,110
IFC COST FACTOR	1.5704	-	1.0398	1.0000	_	
BOND + OVERHEAD & PROFIT COST FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
SALES TAX	•	-	1.0600	1.0600	1.0600	
DIRECT FIELD COST FACTOR =	1.5704	1.0000	1.1022	1.0600	1.0600	
BASE ESTIMATE \$'S	\$119,210	\$175,460	\$16,600	\$32,521		\$343,790
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
TARGET ESTIMATE FACTOR	1.5704	1.0000	1.1022	1.0600	1.0600	
FPS TARGET ESTIMATE (FY00 \$)	\$119,210	\$175,460	\$16,600	\$32,521		\$343,790

NOTE:

IF THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

PROJECT:	OSDF BASELINE - Infrastructure FY06 R1		TE SUMN		EET		DATE:	15-Aug-01
ESTIMATE NO.	. C2-01-05-08-16 R1	DIRE	CT FIELD	COST		,	ESTIMATOR:	RIS/DU
CLIENT:	DOE	W.	/ FACT	ORS			LOCATION:	FERNALD
WBS NO.:	1.1.C.C			- 2/2 4	144771 0	E01110 6	TASK NO.:	CBSP1
PAY ITEM NO.	DESCRIPTION		LABOR \$	S/C \$	MAT'L. \$ 'E MAT'L.\$'S)-	EQUIP. \$	PPE\$	TOTAL \$
	·		(ASSIGN OR	FRORATEFF	E WAT E.\$ 3)-		A 4.100	
	insurance & Bond			9290				
				\$9,290				\$9,290
	Task 1 - Submittals		33170					
			\$52,090					\$52,090
	Overhead and Profit			55290				
				\$55,290			[\$55,290
	MOBILIZATION		3600	2900	800	1000		
	MODICIZATION		\$5,650	\$2,900		\$1,060		\$10,490
				47000				
,	Survevina			17000 \$17,000				\$17,000
								· · · · · · · · · · · · · · · · · · ·
				•				
	Cable & Air Monitors		8720		12000			\$28,440
			\$13,690		\$13,230	\$1,520		\$20, 44 0
	Task 9 - Phase III Temporary Leachat		15900		2060			
			\$24,970		\$2,270	\$24,740		\$51,980
	Task 10 - Construction Water Well		2260	88580	200			
			\$3,550	\$88,580	\$220	\$1,940		\$94,29
	Task 11 - Demo No. Wheel Wash @ I		3460			3080		
			\$5,430			\$3,260	1 1	\$8,69
	Project Staffing							
						[·		
	DEMOBILIZATION		8800				11200	
			\$13,820					\$16,22
TOTAL DIRE	CT FIELD COSTS WIFACTORS		(FY01 DOL	LARS)			<u> </u>	\$343,78

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			•	

FLUOR FERNALD

DATE: 15-Aug-01 ESTIMATOR: RIS/DU LOCATION: FERNALD TASK NO.: CBSP1

PROJEĆT: OSDF BASELINE - Infrastructure FY06 R1
ESTIMATE NO.: C2-01-05-08-16 R1
CLIENT: DOE
WBS NO.: 1.1.C.C

ITEM	SUMMARY	QTY	TIND	Ψ	MAN-HOURS			COST / UNIT	LIND		LABOR	S/C	MAT'L	EQUIP	TOTAL
Š.				Cait	Total	Rate	Labor	S/C	Mati	Equip					
	Insurance & Bond											\$9,290			\$9,290
	Task 1 - Submittals				895						\$33,170				\$33,170
	Overhead and Profit											\$55,290			\$55,290
	MOBILIZATION				158						\$3,600	\$2,900	\$800	\$1,000	\$8,300
												•			
	Surveying			-								\$17,000			\$17,000
	Cable & Air Monitors				360						\$8,720		\$12,000	\$1,430	\$22,150
	Task 9 - Phase III Temporary Leachate Removal	novaí I			722						\$15,900		\$2,060	\$23,340	\$41,300
	Task 10 - Construction Water Well				100						\$2,260	\$88,580	\$200	\$1,830	\$92,870
	Task 11 - Demo No. Wheel Wash @ Impact Mall. Haul Rd	 :t Matl. Har 	ul Rd	·	140				•		3,460			3,080	\$6,540
															-mannan.eq
	Project Staffing	Not Required	i.ed												Not Required
	NO.				390						8,800	2,400			\$11,200
1	Subtotal Direct Cost		LOT		2765						75,910	175,460	15,060	30,680	\$297.110
١															

PROJECT: OSDF BASELINE - Infrastructure FY06 R1 ESTIMATE NO.: C2-01-05-08-16 R1 CLIENT: DOE WBS NO.: 1.1.C.C

FLUOR FERNALD

¥			\$9,290	\$16,200 \$6,330 \$10,640		\$33,170		\$55,290				\prod
TOTAL				⇔ ° ↔		↔		€				
EQUIP												
MAT'L										 		
S/C	11 0 Sec. 15		\$9,290					\$55,290				
LABOR	\$25 X 23			\$16,200 \$6,330 \$10,640	,	\$33,170						
	Equip											
ONIT	Mati											
COST/UNIT	S/C	COST	331716									
	Labor											
S	Rate			50.62 50.62 23.64								
MAN-HOURS	Total			320 125 450		895						
Σ	Unit			40 81				20%				
LIND				888								
ΩTY	1 1 1 1 1			8 25 25								
		1.3%	2.8%	g, enstret work force								
		Insurance & Bond Performance bond	Insurance Sub-total	Task 1 - Submittals Plans Technical submittals Site access & GET fraing, enstret work force		Sub-total	-	Overhead and Profit				
ITEM	Ö.			۵۵۵					 			

DATE: 15-Aug-01 ESTIMATOR: RIS/DU

LOCATION: FERNALD TASK NO.: CBSP1

FLUOR FERNALD PROJECT: OSDF BASELINE - Infrastructure FY06 R1 ESTIMATE NO.: C2-01-05-08-16 R1 CLIENT: DOE

1.1.C.C

CLIENT: WBS NO.:

1	Mobilization & Demobilization	QTY	TIND	MA	MAN-HOURS			COST/UNIT	LINI		LABOR	S/C	MAT'L	EQUIP	TOTAL	Г
				Chilt	Total	Rate	Labor	S/C	Mati	Equip		Y Company				3
	MOBILIZATION															
	ailer		9 9					550								
C	Support trailer		S &	40		22.69		000	1.000	200				\$500	\$500	8
2		-	rs is	8	80	22.69			200	200	\$1.800		\$500	\$500	69	8
۵ ۵		7	MTH	3	3			85	}			\$400				8
۵	Potable water, Allow 5jug/mth, \$8/jug	7	MTH					12	40.00			\$80	\$300		\$380	õ
۵	Mobilize contractor equipment	12	EA	3	78	23.64		200			\$1,840	\$2,400			\$4,240	ê
	MOBILIZATION				158						\$3,600	\$2,900	\$800	\$1,000	\$8,300	8
					,							-				
	Surveying	-	s					17,000				\$17,000			\$17,000	- 0
	7		!													
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											·		a tiri Paga menangan dan paga menangan dan paga menangan dan paga menangan dan paga menangan dan paga menangan			
	DEMOBILIZATION															
۵	Complete Punch List items.	-	rs	20	20	22.69					\$500				\$500	8
۵			rs	20		22.69										
oʻ			S	20	,	22.69					1				•	- 5
ဥ င	Decontaminate Equipment	1 2	g 6	2 0	120	22.69		200 00			\$2,700	\$2 400			\$2,700	2 6
۵۵		-	rs.	10	10	22.69					\$200				\$200	8
	ــــــــــــــــــــــــــــــــــــــ				390						\$8,800	\$2,400			\$11,200	8
								-								
100	· Mobilization & Demobilization	1. Sec. 1. Sec	A.C. S. S.		548			128 300	200 E	S# 5540	12,420	13,790	008	\$5.11,000	\$28,010	Īe
1																7

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DETAIL ESTIMATE WORKSHEETS

FLUOR FERNALD

DATE: 15-Aug-01 ESTIMATOR: RIS/DU LOCATION: FERNALD TASK NO.: CBSP1

PROJECT: OSDF BASELINE - Infrastructure FY06 R1 ESTIMATE NO.: C2-01-05-08-16 R1 CLIENT: DOE WBS NO.: 1.1.C.C

ITEM	M Cable & Air Monitors	OTY	LINIT	MA	MAN-HOURS	-		COST/UNIT	TINS		LABOR	S/C	MATIL	EOUIP	TOTAL
Š		П		ž	Total	Rate	Labor	S/C	Mati	Equip	20 (46) 12 (The second second
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	Power to East side		ĕ						10400				\$10,400		\$10,400
٥	Electricians 2	2	ays	9	100	24.89					\$2,490				\$2,490
۵	Laborers		Jays	9	100	22.65					\$2,260				\$2,260
۵			Jays	0	20	27.03					\$1,350			,	\$1,350
٥			Jays	<u></u>	20	21.59					\$1,080				\$1,080
	Power pole		ea						500.00				\$500		\$500
	Cable		_						4.27				\$430		\$430
		0.23	£ :							2800				\$650	\$650
	Backhoe Cat 416 at 85%		FLS	43				1		8.70				\$370	\$370
	Power to East side				90 20						\$7,180		\$11,330	\$1,020	\$19,530
	Power to West side		Ĕ						300			_	\$300		\$300
	PVC 8" sleeve	20	<u> </u>						7.40		•	-	\$370		\$370
۵		7	Days	0 9	9 6	24.89					\$1,000				\$1,000
_		7 7	Jays	2	2	27.03					0404				\$240
		0.00	בן ב	Ţ						2800				\$260	\$260
	Backhoe Cat 416 at 85%	1	SE				1	1	1	?				001.0	0014
	Power to West side	Papina nga amang manaka d			09						\$1,540		\$670	\$410	\$2,620
															-
										-					
100 m	************************************	13 Park (2.6)	LOT	· 第二個學院	360	L-6520.	5 3 CV 5	3600 X3.2	Sad selection topologic	1430/844 A	\$8,720	がかい はないがた	\$12,000	\$8,720	**************************************

CONITO ACTOD - Chated in EVOI DOLLARS

DETAIL ESTIMATE WORKSHEETS

FLUOR FERNALD PROJECT: OSDF BASELINE - Infrastructure FY06 R1
ESTIMATE NO.: C2-01-05-08-16 R1
CLIENT: DOE

1.1.C.C

WBS NO.:

DATE: 15-Aug-01
ESTIMATOR: RIS/DU
LOCATION: FERNALD
TASK NO.: CBSP1

NAID

Task 9 - Phase III Tomporary Leachide Removal 1	L	و ا	\$37,820		\$80 \$1,350 \$2,050	\$41,300		\$88,580	\$200	\$2,260 \$1,830	\$92,870	
Table 5 - Phase III Temporary Leachate Remove FYOI Table 5 - Phase III Temporary	TOTA		\$3.		\$ 5	\$41		\$8 \$		8 % 8-	\$ 92	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
Titlet 9 - Phase III Tomporary Lacchide Removal Least 10 Phase III Tompora	EOI IID		\$23,000		\$30 \$80 \$230	\$23,340				\$1,830	\$1,830	
Task 9 - Phase III Temporary Leachate Removal Construction Water Well Construction Water W	MAT'		\$110		\$340 \$1,610	\$2,060	-		\$200		\$200	2 (2 m) (2 m) (2 m) (2 m)
Task 9 - Phase III Temporary Leachate Remove Trush Trush Rate Labor SIC Marth Equip Rate Labor SIC Marth Equip Rate Labor SIC Marth Equip Rate Labor SIC Marth Equip Rate Labor SIC Marth Equip Rate Labor SIC Marth Equip Rate Labor SIC Marth Equip Rate Labor SIC Marth Equip Rate Labor SIC Marth Equip Rate Labor SIC Marth Equip Rate Labor SIC Marth Equip Rate Labor SIC Marth Equip Rate Labor SIC Marth Equip Rate Labor SIC Labor S	SIC	Section Chara		•				\$88,580				35 0 00 00 00 00 00 00 00 00 00 00 00 00
Task 9 - Phase III Tomporary Leachate Removal Total Rate Labor SIC Marth Each Excavale and real to stockpile Tom estimate, OSDF Phase Leachate Remove FY01 669 From estimate FY01 From estimate FY01 From estimate FY01 From estimate FY01 From estimate FY02 From estimate FY03 From estimate FY04 From estimate FY04 From estimate FY05 From estimate FY06 From estimate FY06 From estimate FY06 From estimate FY06 From estimate FY06 From estimate FY06 From estimate FY06 From estimate FY06 FY06 From estimate FY06 FY	I ABOR	No.	\$14,710			\$15,900					\$2,260	
Task 9 - Phase III Temporary Leachate Removal Favoraries and favoration Water Well as seed, 24,000 SF Phase III Tomporary Loachate Remove FY01 and develop water well to existing lines 4° 2000 BF Phase III Tomporary Loachate Remove FY01 and develop water well as seed, 24,000 SF Phase III Tomporary Loachate Remover FY01 and develop water well as the first well to existing lines a 200 LF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures as seed, 24,000 SF Phase III Tomporary Loachate Removal Architectures and 200 SF Phase III Tomporary Loachate Removal Architectures and		Equip								365		1009-3009-0
Task 9 - Phase III Temporary Leachate Removal Excavate and remove old leachate and haul to stockpile are in Cell #30. Excavate and remove old leachate and haul to stockpile are in Cell #30. Excavate and remove old leachate and haul to stockpile are in Cell #30. For meating the construction Water Well March 100 LF	TINIT.	Mat'l			1.12				200.00			2.78966.85
Task 9 - Phase III Temporary Leachate Removal Excavate and remove old leachate and haul to stockpile area in Cell #3. From estimate, OSDF Phase I Leachate Remove FY01 669 From estimate, OSDF Phase I Leachate Remove FY01 669 From estimate, OSDF Phase I Leachate Remove FY01 669 From estimate and remove old leachate and haul to stockpile 73 % of Previous estimate 100 LF 73 % of Previous estimate 73 % of Previous estimate 73 % of Previous estimate 73 % of Previous estimate 74 % of Previous estimate 72 % of Previous estimate 73 % of Previous estimate 73 % of Previous estimate 73 % of Previous estimate 73 % of Previous estimate 73 % of Previous estimate 73 % of Previous estimate 73 % of Previous estimate 73 % of Previous estimate 73 % of Previous 73 % of Previous 74 % of Previous 75	נטט	Syc	·		:			88579			·	3.476.8148
Task 9 - Phase III Temporary Leachate Removal Excavate and remove old teachate and haul to stockpile area in Cell #3. From estimate, OSDF Phases Leachate Remove FY01 669		Labor										100
Task 9 and Task 10 Task 9 - Phase III Temporary Leachate Removal Excavate and remove old leachate and haul to stockpile area in Cell #3. From estimate, OSDF Phase 1 Leachate Remove FY01 which was prepared for the 01 Rebasline Adjust for quantity differences: Previous estimate = 800 LF This estimate = 800 LF This estimate = 800 LF Therefore, used 73 % of Previous estimate Therefore, used 73 % of Previous estimate Adjust for quantity differences: Previous estimate = 100 LF This estimate = 800 LF Therefore, used 73 % of Previous estimate Adjust for quantity differences: Previous estimate Bould SP Therefore, used 73 % of Previous estimate Therefore, u	,				22.65 22.65 22.65							100
Task 9 - Phase III Temporary Leachate Removal Excavate and remove old leachate and haul to stockpile area in Cell #3. From estimate, OSDF Phase1 Leachate Remove FY01 which was prepared for the 01 Rebasline Adjust for quantity differences: Previous estimate = 800 LF This estimate = 800 LF This estimate = 800 LF This estimate = 800 LF This estimate = 800 LF This estimate = 800 LF This estimate = 800 LF This estimate = 800 LF Therefore, used 73 % of Previous estimate Adjust for quantity differences: Previous estimate = 1100 LF This estimate Adjust for quantity differences: Previous estimate when the or for for for for for for for for for	AN-HOLIG	Total	699		•	722					100	Mark Co. Co., Co.
Task Excav c Repail Fertiliar Capab Tie wa 4"x 8" 4" HDI 4" HDI 4"x 8" 4" 4" HDI 4"x 8" 4" 4" HDI 4"x 8" 4" 4" 4" 4" 4" 4" 4" 4" 4" 4" 4" 4" 4"	W				0.042 0.097 20.000					10		38 7 75 N
Task Excav c Repail Fertiliar Capab Tie wa 4"x 8" 4" HDI 4" HDI 4"x 8" 4" 4" HDI 4"x 8" 4" 4" HDI 4"x 8" 4" 4" 4" 4" 4" 4" 4" 4" 4" 4" 4" 4" 4"	TINIT	5	al sile		LF SF Acre	<u> </u>		ea a				2000
Task Excav c Repail Fertiliar capab Tie wa 4"x 8" 4" HDI 4" HDI 4"x 8" 4" HDI 4" Ask 6" HDI 4" Ask 6" HDI 4" Ask 6" HDI 4	νtο	5	e Remov I to stockp ate Remo	timate	300	e Remov		-	1 2000	ນນ		\$ 500 mm 3 mm
## ≥# =			Task 9 - Phase III Temporary Leachate Excavate and remove old leachate and haul area in Cell #3. From estimate, OSDF Phase1 Leacha which was prepared for the 01 Rebasi	Adjust for quantity differences: Previous estimate = 1100 LF This estimate = 800 LF Therefore, used 73 % of Previous est	mD Saw cut asphalt road 20x15 mD Repair asphalt road mD Fertilize & seed, 24,000 SF	Task 9 - Phase III Tomporary Leachate		Task 10 - Construction Water Well Drill and develop water well capable of 250-350 gpm.	mD Tie water well to existing lines mD 4"x 8" Tap mD 4" HDPE ploe	Pipefitters HDPE welding machine	Task 10 - Construction Water Well	

CONTRACTOR - Stated in FY01 DOLLARS

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY06 R1 ESTIMATE NO.: C2-01-05-08-16 R1 CLIENT: DOE WBS NO.: 1.1.C.C

FLUOR FERNALD

TOTAL			4300	\$250		\$590		\$910	\$2,070	\$80	\$450	\$1,070	\$820		\$6,540
TO															4.000
EQUIP									\$1,610	\$80		\$800	\$590		\$3,080 \$45.550
E															
MAT'L	\$400 C 400														1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
S/C														·	11. W. W. W. W.
S/	A Section							_	_		0	0	0		0
LABOR	1970年代の日本の日本の日本の日本の		430	\$250		\$590		\$910	\$46		\$450	\$270	\$230		\$3,460
_	Equip				594.81				802.77	33.72		802.77	594.81		
_	\dashv				- 28				8			<u>∞</u>	26		75 (m) (m) (m) (m) (m) (m) (m) (m) (m) (m)
COST/UNIT	Mati														
ŏ	S/C														
	Labor					- 01			<u> </u>		10		"		\$4 April
S	Rate			24.89		29.62			22.86			27.03			184.00483
MAN-HOURS	Total		*	5 5		20		40	20		20	10	10		280
W/	čii	Ş	5	5 6		9		5	9		9	9	9	•	6444 s
UNIT	12 A 17 A 17 A 17 A 17 A 17 A 17 A 17 A	 - Haul Rd		Days		Days		Days	Days	Days	Days	Days	Days		
QTY	Selection of the	act Mat	c	0.5		_		_	2		_	_	-		TOT LOT
		- E		1 77		7		8	-	_	7	_	-)	
ckpiles		Wash	sp				slab			n mtc s			nck uck		10 - (14 Kg)
Task 5 - Relocate Existing Stockpiles		. Whee	ctric fee		**		oncrete		for	Hydraulic hammer, boom mtc ate, load, and hauf debris		tor	Volvo A30 artic, dump truck		frect Cos
Relocate E		omo No	r and ele	lans	ater line	ers	reduce c	હ	Cat 330 excavator	lic hamn d. and h	5	Cat 330 excavator	130 artic		Subtotal D
Task 5.		Task 11 - Demo No. Wheel Wash @ Impact Matl.	Lockout water and electric feeds	Electricians	Disconnect water lines	Pipefitters	Demo & size reduce concrete slab	Laborers	Cat 33(Hydraulic hammer, boom Excavate, load, and haul debris	Laborers	Cat 33(Volvo ≠		इस्ट्रेस्ट्रेस्ट्रेस्ट्रेस्ट्रेस्ट्रेस्ट्रेस्ट्रेस्ट्रेस्ट्रेस्ट्रेस्ट्रेस्ट्रेस्ट्रेस्ट्रेस्ट
Σ		Task			Disco					Exca		_	_		10. 其外的原理
ITEM	Š.			<u> </u>		£		£	۵		5		٥		 <u>ं</u>

ACTIVITY DURATIONS FLUOR FERNALD

PROJECT:

OSDF BASELINE - Infrastructure FY06 R1

ESTIMATE NO. C2-01-05-08-16 R1

CLIENT: WBS NO.: DOE 1.1.C.C DATE:

15-Aug-01 ESTIMATOR: RIS/DU

LOCATION: FERNALD TASK NO.: CBSP1

	EST.	START	MID	COMPL.		
ACTIVITY	DATE	DATE	POINT	DATE	ACTIVITY	DURATION
						Each Year
Infrastructure	08-Aug-01	02-Oct-06	04-Oct-06	06-Oct-06	0.1	MONTHS
Liner			00-Jan-00		0.0	MONTHS
Video & Demob			00-Jan-00		0.0	MONTHS
TOTAL					0.1	MONTHS
					0.0	

Days per Schedule

> 32 100.0% 142

0.0% 0.0%

36

210

61.9 MONTHS

DATE of EST. to MID-POINT ACTIVITY DURATION a. MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. to MID-POINT ACTIVITY DURATION **MONTHS**

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

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ESTIMATE SUMMARY SHEET

PROJECT:

OSDF BASELINE - Infrastructure FY07 R1

ESTIMATE #: C2 -01-05-08-17 R1 CLIENT:

DOE

FLUOR FERNALD

DATE:

15-Aug-01

ESTIMATOR: RIS/DU LOCATION: FERNALD

WBS #: 1.1.C.C						TASK NO.:	CBSP1
ITEM DESCRIPTION	M/H	RATE	LABOR \$	S/C \$	MAT'L\$	EQUIP. \$	TOTAL \$
Insurance & Bond				\$5,210			\$5,210
Task 1 - Submittals				1			Not Required
Overhead and Profit	[\$30,980			\$30,980
MOBILIZATION	78		\$1,800	\$2,900	\$300	\$1,000	\$6,000
2 consider				\$10,000			\$10,000
Surveying				\$10,000			\$10,000
Cable & Air Monitors	360		\$8,720		\$12,000	\$1,430	\$22,150
Remove underground/above interim leachate line	1,942		\$35,810		\$4,360	\$30,800	\$70,970
				1			
	1						
Project Staffing							Not Required
	200		60 000	53 400			\$11,200
DEMOBILIZATION	390		\$8,800	\$2,400			\$11,200
DIRECT FIELD COSTS TOTAL	2,770	\$19.90	\$55,130	\$51,490	\$16,660	\$33,230	\$156,510
SUPERVISION - CONTRACTOR		· · · · · · · · · · · · · · · · · · ·					
SMALL TOOLS & CONSUMABLES	-	-	-		\$800		\$800
MISC. EQUIP. RENTAL	-	-	-				
TEMPORARY FACILITIES incl w/Mobilization							
TEMPORARY UTILITY HOOK-UP incl w/Mobilzation	54		\$1,100		\$600		\$1,700
JOB CLEAN-UP ind w/Job Close-out							
PER DIEM / SUBSISTANCE	-	-	. -				
HEALTH PHYSICS S/C ind w/Submittals							
CERCLA - TRAINING ind w/Submittals			·				
GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su							
PAYROLL BURDENS & BENEFITS	-	-	\$32,100				\$32,100
OVERHEAD & PROFIT	-	-	-				
BOND	-	-	-				
SALES TAX	-	-	-		\$1,100	\$2,000	
INDIRECT FIELD COSTS TOTAL	54		\$33,200		\$2,500	\$2,000	
DIRECT & INDIRECT FIELD COSTS TOTAL	2,824	\$31.28	\$88,330	\$51,490	\$19,160	\$35,230	\$194,210
TARE POTILIATE			(=)(04 D(2: 1 4 5 6 7			2424.000
TARGET ESTIMATE			(FY 01 DC	OLLARS)			\$194,200

ESTIMATE PERFORMED BY ESTIMATING SERVICES

ES	TIMATE SUMM	ARY SHE	ET			
PROJECT: OSDF BASELINE - Infrastructure FY07 R1					DATE:	15-Aug-01
ESTIMATE NO. C2 -01-05-08-17 R1	FACTOR	RS			ESTIMATOR:	RIS/DU
CLIENT: DOE					LOCATION:	FERNALD
WBS NO.: 1.1.C.C					TASK NO.:	CBSP1
FIXED PRICE (LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE \$	TOTAL \$
DFC DOLLARS	\$55,130	\$51,490	\$16,660	\$33,230		\$156,510
IFC COST FACTOR	1.6022	-	1.0840	1.0000	-	
BOND + OVERHEAD & PROFIT COST FACTOR	1.0000	1.0000	1.0000	1.0000		
SALES TAX	-	-	1.0600	1.0600	1.0600	
DIRECT FIELD COST FACTOR =	1.6022	1.0000	1.1491	1.0600	1.0600	
BASE ESTIMATE \$'S	\$88,330	\$51,490	\$19,144	\$35,224		\$194,18
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
TARGET ESTIMATE FACTOR	1.6022	1.0000	1.1491	1.0600	1.0600	
FPS TARGET ESTIMATE (FY00 \$)	\$88,330	\$51,490	\$19,144	\$35,224		\$194,187

NOTE:

IF THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

	ESTI	MA	TE SUM	MARY SHE	EET			
PROJECT:	OSDF BASELINE - Infrastructure FY07 R1						DATE:	15-Aug-01
I			ECT FIELD	1			ESTIMATOR:	RIS/DU
CLIENT:	DOE 1.1.C.C	W	FACT	ORS			LOCATION: TASK NO.:	FERNALD CBSP1
WBS NO.: PAY ITEM NO.			LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE \$	TOTAL \$
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		-			E MAT'L.\$'S)-		1	
	Insurance & Bond			5210 \$5,210				\$5,210
				\$5,210			 	\$3,210
	Task 1 - Submittals							
							 	
	Overhead and Profit			30980]	
				\$30,980			 	\$30,980
	MOBILIZATION		1800			1000		
			\$2,880	\$2,900	\$340	\$1,060]	\$7,180
	·							
	Survevina			10000				
				\$10,000				\$10,000
	Cable & Air Monitors		8720		12000	1430		i
	Cable & All Monitors		\$13,970		\$13,790			\$29,280
1	Description of the same interior la		35810		4360	30800		
	Remove underground/above interim le		\$57,380	1	\$5,010	,	, .	\$95,040
	·							
·								
					1			
	Project Staffing							
	DEMOBILIZATION		8800	2400	,		11200	
			\$14,100					\$16,500
TOTAL DIRE	CT FIELD COSTS W/FACTORS		(FY01 DO	LLARS)		<u> </u>		\$194,190

FLUOR FERNALD PROJECT: OSDF BASELINE - Infrastructure FY07 R1
ESTIMATE NO.: C2 -01-05-08-17 R1
CLIENT: DOE
WBS NO.: 1.1.C.C

ITEM SUMMARY		QTY	TIND		MAN-HOURS			COST / UNIT	TIND	H	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Unit	Unit	Š	\dashv	Total	Rate	Labor	S/C	Mat'i	Equip		4 35 % Spire 8			
Insurance & Bond			. •							****		\$5,210			\$5,210
Task 1 - Submittals Not Required	Not Required	ired													Not Required
Overhead and Profit												\$30,980			\$30,980
MOBILIZATION					78						\$1,800	\$2,900	\$300	\$1,000	\$6,000
Surveying												\$10,000			\$10,000
															
Cable & Air Monitors					360		·			····	\$8,720		\$12,000	\$1,430	\$22,150
Remove underground/above interim leachate line	ate line				1,942						\$35,810		\$4,360	\$30,800	\$70,970
									-						
															
									·						
															•
Project Staffing Not Required	Not Required	ired													Not Required
DEMOBILIZATION		`	•		390						8,800	2,400			\$11,200
Subtotal Direct Cost & Managed LOT			1. may 1. m	_	c. 2770	Special in	STANIAL S	7,8% (8.4.);	SPERMAN	100000000000000000000000000000000000000	8.055,130°	//sex:51,490	16,660	0.5% 33,230	7877 55,130 1852 51,490 2011 16,660 115 1833 33,230 125 185 156,510

CONTRACTOR - Stated in FY01 DOLLARS .

DETAIL ESTIMATE WORKSHEETS

FLUOR FERNALD PROJECT: OSDF BASELINE - Infrastructure FY07 R1 ESTIMATE NO.: C2 -01-05-08-17 R1 CLIENT: DOE WBS NO.: 1.1.C.C

TEM		OTY	TINO	Ž	MAN-HOURS			COST/UNIT	TINO		LABOR	S/C	MAT'L	EQUIP	TOTAL
Š.				รี	Total	Rate	Labor	S/C	Mat'l	Equip			\$ 12 A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
	Insurance & Bond Performance bond 1.3% Insurance Sub-total 2.8%							COST THRU OH & P				\$5,210			\$5,210
0000	Task 1 - Submittals Plans Technical submittals Site access & GET traing, cnstrct work force Site access & GET traing, surveyers & others	16 100 25 7	88888	50 2 18 18 18	800 500 450 126 72	50.62 50.62 23.64 33.69 50.00					\$40,500 \$25,310 \$10,640 \$4,240 \$3,600				\$40,500 \$25,310 \$10,640 \$4,240 \$3,600
											\$600				
	Sub-total				z. Z.										Not Required
	Overhead and Profil			20%								\$30,980			\$30,980
				·									•		

CONTRACTOR - Stated in FY01 DOLLARS .

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY07 R1 ESTIMATE NO.: C2 -01-05-08-17 R1

CLIENT:

WBS NO.:

Portable toilets Install Utilities

00000

DOE

FLUOR FERNALD

\$2,700 \$7,800 \$200 \$11,200 \$500 \$500 \$400 \$380 \$4,240 \$500 \$10,000 \$22,210 TOTAL DATE: 15-Aug-01 ESTIMATOR: RIS/DU LOCATION: FERNALD CBSP1 \$500 \$1,000 1,000 TASK NO.: EQUIP \$300 300 \$300 MAT'L \$400 \$80 \$2,400 \$10,000 \$2,400 10,290 \$2,400 \$2,900 သွ \$1,840 \$1,800 \$500 \$2,700 \$5,400 \$200 \$8,800 10,620 LABOR 500 500 Equip 1,000 40.00 Mat COST/UNIT 85 12 200 550 350 10,000 200 S/C Labor 22.69 22.69 22.69 22.69 22.69 22.69 22.69 23.64 Rate MAN-HOURS 39 10 39 22 468 Total 2 2 2 2 2 2 8 9 5 MO LS LS MTH MTH NN TIND S LS LS ea ea es LS LS LS 12 ΩTY 1 reqd 2 ea Other misc. requirements as required. Remove Trailer and Change Facilities. Potable water, Allow 5jug/mth, \$8/jug Mobilization & Demobilization DEMOBILIZATION Mobilization & Demobilization Other area requirements.

DEMOBILIZATION MOBILIZATION Loadout contractors equipment. MOBILIZATION Mobilize contractor equipment Complete Punch List items. Decontaminate Equipment. 1.1.C.C Remove all Utilities. S/C Office Trailer Support trailer

Surveying

000500

CONTRACTOR - Stated in FY01 DOLLARS

s:\estdeptVy01rebaselinecp\cbsp1\c2010508_fy07 r1.xds

DETAIL ESTIMATE WORKSHEETS

FLUOR FERNALD

DATE: 15-Aug-01 ESTIMATOR: RIS/DU LOCATION: FERNALD TASK NO.: CBSP1

PROJECT: OSDF BASELINE - Infrastructure FY07 R1
ESTIMATE NO.: C2 -01-05-08-17 R1
CLIENT: DOE
WBS NO.: 1.1.C.C

TOTAL		\$10,400	\$2,490	\$2,260	\$1,080	\$500	\$430	\$650	640 520	9	\$300	\$370	\$1,000	\$540	\$260	\$150	\$2,620				COS AEO
EQUIP	101 11 1 1 A					٠		\$650	64 020	030,1					\$260	\$150	\$410				1007 76
MAT'L	A	\$10,400				\$500	\$430		644 330	9	\$300	\$370					\$670				£12 000
S/C	10,110,144																				A. Sameralan Com
LABOR	And the second		\$2,490	\$2,260	\$1,080		-		C7 180	2			\$1,000	\$540			\$1,540				60 700
	Equip							2800	0.70						2800	8.70					Carlo Machania
UNIT	Mati	10400				500.00	4.27				300	7.40									2000
COST/UNIT	S/C																				2000
	Labor																				
S	Rate		24.89	22.65	21.59								24.89		٠						
MAN-HOURS	Total		9 6		20				300				40				09	,			000
2	รี		9 9	5 5	5 6			73	4.5	-			9	10		17					
UNIT				5 Days		ea		¥ 1	SE		ĕ		Days			Hrs					10.
ΑΤΩ		- '	KG W	n u	2	-	100	0.23			•	20	2	2	0.09						100000
			0.0	N -				1 85%	92.00				2	-	-	85%					6 7 7 7 7 7 7
Cable & Air Monitors		Power to East side	Electricians	Congression	Foreman	Power pole	Cable	Backhoe Cat 416	Dougs to East side	rowel to East stud	Power to West side	PVC 8" sleeve	Electricians	Operators	Backhoe Cat 416	Backhoe Cat 416 at	Power to West side				
ITEM	õ		ه ۵	ء د	۵ ۵								٥	۵			<u> </u>				

FLUOR FERNALD

PROJECT: OSDF BASELINE - Infrastructure FY07 R1 ESTIMATE NO.: C2 -01-05-08-17 R1

DOE 1.1.C.C

CLIENT: WBS NO.:

Unit Total Ratio Lubar StC Mart Equip St3.290 St2.450 St			OTV.	THAIL	MAAA	al JOH	v		TIMI "TOO	į		IABOR	SIC	MAT	FOLIE	TOTAL
14 17 17 16 20.59 53.290 53.290 52.200	Š	Delinas direction of the control of			Chit	Total	Rate	\vdash	-	=	_					
10 11 12 12 12 12 12 12		Task 12		T					-	-						
10		Remove underground/above interim leachate	e L													
10 11 12 100 24.57 100 25.60 14.62 100 24.57 20.50 100 24.57 20.50 100 24.57 20.50 20.50 24.57 20.50 20.50 24.57 20.50 20.50 24.57 20.50		Excavate Leachate Line												-		
10 11 10 10 10 10 10 10																
10 10 24.57 100 24.57 14.62 14.62 12.040 14.62 12.040 14.62 12.040 14.62 12.040 14.62 12.040 14.62 12.040 12.	딭		40	Ĕ	4	160	20.59					\$3,290				\$3,290
1	윤		20	Ĕ	7	9	24.57					\$2,460				\$2,460
14 1 1 2 120 20,78 1462 52,490 52,490 52,290 53,300 54,360 56,50 14,62 53,300 54,360 54,360 56,50 14,62 56,110 56,	뒫		9	È.	_	5	26.40					\$260				\$260
14 14 15 14 14 15 14 14	딭	•	9	È	7	120	20.78					\$2,490				\$2,490
Sign Figure Sign		Pickup Truck	15	È							14.62				\$220	\$220
14 14 15 15 15 15 15 15		Kebelco 2201V	65	Ē							58.44				\$3,800	\$3,800
Fig. Fig.		Cat 416B	9	Ĕ							23.94				\$720	\$720
Fig. Fig.		Volvo A25C	65	눌							67.10				\$4,360	\$4,360
1462 150		Volvo A25C	65	Ĕ							67.10				\$4,360	\$4,360
50 br hr 14.62 67.10 14.62 67.10 5.730 67.10 \$730 83.360 50 br hr 23.360 67.10 \$3.360 83.360 \$3.360 83.360 \$3.360 83.360 50 br hr 24 160 20.278 20.59 20.078 113.00 20.078 \$3.290 83.390 \$3.290 83.390 \$1.000 83.390 50 br hr 2 100 20.28 24.57 20.000 83.900 \$3.290 83.390 \$3.390 83.390 \$3.390 83.390 \$3.300 83.390 \$3.300 83.390 \$3.300 83.300 \$3.000 83.300																
Figure F		Backfill Leachate Line					-		-						0	-
Figure F		Pickup Truck	20	Ę							14.62				\$730	\$730
Figure F		Volvo A25C	22	בֿ							67.10				\$3,360	\$3,360
Figure F		Volvo A25C	20	È							67.10				\$3,360	\$3,360
Figure F		Cat 416B	20	녿							23.94				\$1,200	\$1,200
50 hr 1 20 20.59 113.00 53.290 53.290 54.000 55.000 5		Volvo L-150	20	ž							60.11				\$3,010	\$3,010
50 hr 4 160 20.59 113.00 \$3.290 \$1.000 \$1.000 50 hr 2 160 24.57 113.00 \$3.290 \$1.000 \$1.000 50 hr 2 160 24.57 300.00 \$2.080		Kehelco 2201V	20	<u> </u>							58.44			-	\$2,920	\$2,920
50 hr 4 160 20.59 \$3.290 \$1,000 40 hr 2 160 24.57 300.00 \$3.290 80 hr 2 160 24.57 300.00 \$3.390 50 hr 2 100 20.78 300.00 \$60.00		Fin Hydo	20	Ĕ					-		15.00				\$750	\$750
50 hr 4 160 20.59 113.00 \$3.290 \$3.930 80 hr 2 160 24.57 \$3.930 \$3.930 \$3.930 50 hr 2 160 24.57 \$3.000 \$4.90 \$4.90 \$3.900 20 hr 1 2 40 20.59 \$60.00 \$60.00 \$60.00 \$60.00 \$60.00 \$1.00		Remote Trench Compactor	20	È							20.00				\$1,000	\$1,000
The continuous continuo cont		Sheenfoot Compactor	20	=							113.00					
No. No.	Ę		4		4	160	20.59					\$3,290				\$3,290
50 hr 2 100 20.78 \$2,080 \$2,080 \$300 20 hr 1 20 24.57 \$6.00 \$6.00 \$490 \$150 \$150 20 hr 1 3 20.59 50.00 50.00 \$60 \$150 \$150 128 hr 1.0 128 0.75 \$7,370 \$100 \$460 150 hr 2.0 300 24.57 20.59 \$6,180 \$4,210 \$460 150 hr 2.0 300 20.59 1.56 \$3,090 \$4,210 \$460 2700 lf 3.0 150 20.59 1.56 \$3,090 \$4,210 \$4,210 2700 lf 3.0 150 20.59 1.56 \$3,090 \$4,210 \$4,210	2 6	_	08	=	2	160	24.57					\$3,930				\$3,930
1 WK 1 20 24.57 300.00 \$490 50.00 \$6	<u> </u>		20	: }	10	9 6	20.78					\$2.080				\$2,080
1 wk 1 wk 1 20 24.57 300.00 \$490 \$300 \$300 20 hr 2 40 20.59 \$0.59 \$0.00 \$60.00 \$60.0 \$150 \$150 \$150 128 hr 1.0 128 0.75 \$7,370 \$120 \$100	<u>}</u>)	:	l							•				
20 hr 1 20 24.57			7	ڍ							000				300	8300
20 hr 2 40 20.59 50.00 50.00 \$60 \$150 \$150 \$150 \$150 \$150 \$150 \$150 \$15	-	_	- 6	ξ i	-	2	24 57					\$490))	\$490
126 hr 1.0 1.28 50.00 50.00 50.00 \$6.00 \$150	E E		2 6	<u>-</u>	- 2	40	20.59					\$820				\$820
128 hr 1.0 128 hr 2.0 300 24.57	2 6		6	<u>ء</u>	-	۳.	20.59			20.00	20.00	\$60		\$150	\$150	\$360
128 hr 2.0 300 24.57	=	_	128	: =	. 0.	128										
150 hr 2.0 300 24.57 \$7.25 \$7.370 \$460 \$460 \$128 hr 0.5 64 20.59 \$1.56 \$3.090 \$4.210 \$		CAT ERS compactor	128	<u>ـــ</u>	-0.1	128		-			0.75				\$100	\$100
128 hr 0.5 64 20.59 1.156 \$6,180 \$44,210 \$44,210 \$50.59 1.156 \$3,090 \$4360 \$56,88\$	_	CAL 300 cumpactum	150	: 2	20.	300	24.57		<u>:</u>			\$7,370				\$7,370
150	<u> </u>	Operation	2 5	: 2	. "	84					7.25				\$460	\$460
150		CAT 613 water wagon	3 5	E 3	. c	5 6	20 50				-	46 180			· ·	\$6.180
150	_	Laborer	200	<u> </u>	7.0	200	£0.03			92.		201,00		64.240		\$4.21
50 hr 3.0 150 20.59		Fence (construction)	2700	= .			2			96.1		79 000		017,40		0-1,40
STATE STAT	٥	Laborer	8	ž	3.0	25	50.59		-	1	1	080'5¢				080,8¢
ASSECTION STATES OF STATES									L		-	0.00			000	020
	4.00 C	を記れないがないが、SubTotal Direct Costs シャッドはおから	1 W. W.				100000000	185356			_	35,81U			30,800	078'07 \$

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			•		

ACTIVITY DURATIONS FLUOR FERNALD

PROJECT:

OSDF BASELINE - Infrastructure FY07 R1

CLIENT:

ESTIMATE NO. C2-01-05-08-17 R1 DOE

WBS NO.:

1.1.C.C

DATE:

15-Aug-01

ESTIMATOR: RIS/DU LOCATION: FERNALD

TASK NO.: CBSP1

	EST.	START	MID	COMPL.		
ACTIVITY	DATE	DATE	POINT	DATE	ACTIVITY	DURATION
						Each Year
Monitoring Well	08-Aug-01	24-Sep-07	26-Sep-07	28-Sep-07	0.1	MONTHS
Liner			00-Jan-00		0.0	MONTHS
Video & Demob			00-Jan-00		0.0	MONTHS
TOTAL					0.1	MONTHS
					0.0	

Days per Schedule

> 32 100.0% 0.0% 142

0.0%

36

210

	DATE of EST. I	o MID-POINT TION
a.	73.7	MONTHS
b.	0	MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. to MID-POINT ACTIVITY DURATION										
0	MONTHS									

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

			•
			·

ESTIMATE SUMMARY SHEET

PROJECT:

OSDF BASELINE - Infrastructure FY08 R1

CLIENT: WBS #:

ESTIMATE #: C2 -01-05-08-18 R1 DOE 1.1.C.C

FLUOR FERNALD

DATE: ESTIMATOR: RIS/DU

15-Aug-01

LOCATION: FERNALD

TASK NO.: CBSP1

ITEM DESCRIPTION	M/H	RATE	LABOR \$	S/C\$	MAT'L \$	EQUIP. \$	TOTAL\$
				21 212			
Insurance & Bond				\$1,010			\$1,01
Task 1 - Submittals							Not Require
Overhead and Profit				\$6,030			\$6,03
MOBILIZATION			\$2,000	\$300	\$500	\$1,000	\$3,80
Delegation of Air Manitors	. 250		SG 100		610.400	\$650	\$17.45
Relocation of Air Monitors	250		\$6,100		\$10,400	\$650	\$17,150
Project Staffing							Not Require
		·					
DEMOBILIZATION	100		\$2,400	\$200			\$2,600
DIRECT FIELD COSTS TOTAL	437	\$24.03	\$10,500	\$7,540	\$10,900	\$1,650	\$30,59
SUPERVISION - CONTRACTOR							
SMALL TOOLS & CONSUMABLES	-	-	-		\$200		· \$200
MISC. EQUIP. RENTAL	-	-	- ·			14	
TEMPORARY FACILITIES incl w/Mobilization							
TEMPORARY UTILITY HOOK-UP incl w/Mobilzation	9		\$200		\$100		\$30
JOB CLEAN-UP ind w/Job Close-out							
PER DIEM / SUBSISTANCE	-	-	-				
HEALTH PHYSICS S/C ind w/Submittals							
CERCLA - TRAINING ind w/Submittals							
GET/SITE ACCESS & JOB SPECIFIC TRAINING w/st							
PAYROLL BURDENS & BENEFITS	-	-	\$6,100				\$6,10
OVERHEAD & PROFIT	-	-	-				
BOND	-	-	-				
SALES TAX	-	-	•		\$700	\$100	
INDIRECT FIELD COSTS TOTAL	9		\$6,300		\$1,000	\$100	\$7,40
DIRECT & INDIRECT FIELD COSTS TOTAL	446	\$37.71	\$16,800	\$7,540	\$11,900	\$1,750	\$37,99
TARGET ESTIMATE			(FY 01 DC	DLLARS)	***************************************		\$38,00
1741,021, 201,			(JEE, tito,			, , ,

ESTIMATE PERFORMED BY ESTIMATING SERVICES

ESTIN	MATE SUMM	ARY SHE	ET			•
PROJECT: OSDF BASELINE - Infrastructure FY08 R1					DATE:	15-Aug-01
ESTIMATE NO. C2 -01-05-08-18 R1	FACTOR	R S	ESTIMATOR:	RIS/DU		
CLIENT: DOE WBS NO.: 1.1.C.C					LOCATION: TASK NO.:	FERNALD CBSP1
FIXED PRICE (LABOR \$	S/C \$	MAT'L.\$	EQUIP. \$	PPE \$	TOTAL \$
DFC DOLLARS	\$10,500	\$7,540	\$10,900	\$1,650		\$30,590
IFC COST FACTOR BOND + OVERHEAD & PROFIT COST FACTOR	1.6000 1.0000	 1.0000	1.0275 1.0000	1.0000 1.0000	1 1	
SALES TAX	- 1	-	1.0600	1.0600	1.0600	
DIRECT FIELD COST FACTOR =	1.6000	1.0000	1.0892	1.0600	1.0600	
BASE ESTIMATE \$'S	\$16,800	\$7,540	\$11,872	\$1,749		\$37,96
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
TARGET ESTIMATE FACTOR	1.6000	1.0000	1.0892	1.0600	1.0600	
FPS TARGET ESTIMATE (FY00 \$)	\$16,800	\$7,540	\$11,872	\$1,749		\$37,96

IF THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

NOTE:

PROJECT:	OSDF BASELINE - Infrastructure FY08 R! C2 -01-05-08-18 R1	TE SUMM		· · · ·		DATE: ESTIMATOR:	15-Aug-01 RIS/DU
CLIENT:	DOE	FACTO	r			LOCATION:	FERNALD
WBS NO.:	1.1.C.C	 	0/0 ft	MATH 6	FOLUD 6	TASK NO.:	CBSP1
PAY ITEM NO.	DESCRIPTION	 LABOR \$	S/C \$	MAT'L. \$ │ E MAT'L.\$'S)~	EQUIP. \$	PPE \$	TOTAL \$
		(ASSIGN OR I	PRORATE PP	E WIAT L.\$ 3)-			
	Insurance & Bond	·	1010 \$1,010				\$1,01
	Task 1 - Submittals						
	Overhead and Profit		6030 \$6,030				\$6,03
	MOBILIZATION	2000 \$3,200	300 \$300	500 \$540	1000 \$1,060		\$5,10
	Relocation of Air Monitors	6100 \$9,760		10400 \$11,330	650 \$690		\$21,78
				·			
	·						
			·				
	Project Staffing						
	DEMOBILIZATION	2400 \$3,840	200 \$200			2600	\$4,04

PROJECT: OSDF BASELINE - Infrastructure FY08 R1
ESTIMATE NO.: C2 -01-05-08-18 R1
CLIENT: DOE

1.1.C.C WBS NO.:

FLUOR FERNALD

DATE: 15-Aug-01
ESTIMATOR: RIS/DU
LOCATION: FERNALD TASK NO.: CBSP1

TOTAL		\$1,010	Not Required	\$6,030	\$3,800		\$17,150								Not Required	\$2,600
EQUIP					\$1,000		\$650									
MAT'L	\disp.				\$500		\$10,400		· · · · · · · · · · · · · · · · · · ·		•					
S/C		\$1,010		\$6,030	\$300							 				200
LABOR	Section of the section of				\$2,000		\$6,100					-				2,400
	Equip															
/ UNIT	Mat'i															
COST / UNIT	S/C															
	Labor															
S	Rate													,		
MAN-HOURS	Total				87		250									100
×	Cnit							•					•			
TIND			lired												nired 	
QTY			 Not Required												Not Required	
SUMMARY		Insurance & Bond	Task 1 - Submittals	Overhead and Profit	MOBILIZATION		Relocation of Air Monitors								Project Staffing	DEMOBILIZATION
ITEM	Ñ.															

1.1.C.C WBS NO.:

PROJECT: OSDF BASELINE - Infrastructure FY08 R1
ESTIMATE NO.: C2 -01-05-08-18 R1
CLIENT: DOE

DATE: 15-Aug-01
ESTIMATOR: RIS/DU
LOCATION: FERNALD
TASK NO.: CBSP1 FLUOR FERNALD

				·			 	
TOTAL		\$1,010	\$40,500 \$25,310 \$10,640 \$4,240 \$3,600		Not Required	\$6,030		
EQUIP								
MAT'L								
O/S		\$1,010				\$6,030		
LABOR			\$40,500 \$25,310 \$10,640 \$4,240 \$3,600	\$200				
	Equip		100					
UNIT	Mati							
COST/UNIT	S/C	COST THRU OH & P						
	Labor							
S	Rate		50.62 50.62 23.64 33.67 50.00					
MAN-HOURS	Total		800 500 450 126 72		Z. G.			
W	Cult		05 2 8 8 8 5 .			20%		
TINO			4444					
QTY			16 100 255 7 7					
		Insurance & Bond 1.3% Performance bond 1.5% Insurance Sub-total 2.8%	Task 1 - Submittals Plans Technical submittals Site access & GET traing, cnstrct work force Site access & GET traing, PM, CM etc Site access & GET traing, surveyers & others		Sub-total	Overhead and Profit		
ITEM	ġ					OI		 \dagger

PROJECT: OSDF BASELINE - Infrastructure FY08 R1
ESTIMATE NO.: C2 -01-05-08-18 R1
CLIENT: DOE
WBS NO.: 1.1.C.C

FLUOR FERNALD

		200	\$2,800	\$60 \$10 \$370	\$3,800	\$500 \$500 \$500 \$500 \$700 \$700 \$2,600	370
TOTAL				↔	\$3	φ φ φ φ φ φ _φ	. \$6,370
EQUIP		9 8 80 9	\$500		\$1,000		1,000
MAT'L		•	\$500		\$500	· · · · · · · · · · · · · · · · · · ·	200
S/C	争论。			\$60 \$10 \$200	\$300		485
LABOR			\$1,800	\$170	\$2,000	\$500 \$500 \$500 \$200 \$200 \$200	4,385
	Equip	500	200				14 15 14 14 14 14 14 14 14 14 14 14 14 14 14
TIN	Mat'i	1,000	200	40.00			
COST/UNIT	S/C	550 350		85 12 200		500	
	Labor						No. of the second
	Rate	22.69	22.69	23.64		22.69 22.69 22.69 22.69 22.69	
MAN-HOURS	Total		80	^	87	20 50 10 100 100 100 100 100 100 100 100	187
MAI	S S	04	80	က		00000	1.条件等等
LIND		MO MO	rs.	MTH MTH EA		N m m n N	Sec.
QTY			-				(A) (A) (A) (A)
Mobilization & Demobilization		MOBILIZATION S/C Office Trailer 1 reqd Support trailer 1 reqd	Other misc. requirements as required	Portable toilets 2 ea Potable water, Allow 5jug/mth, \$8/jug Mobilize contractor equipment			Moderation & Demobilization & Second
			۵۵	ه ه ه		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	差式

CONTRACTOR - Stated in FY01 DOLLARS

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY08 R1 ESTIMATE NO.: C2 -01-05-08-18 R1 CLIENT: DOE

CLIENT: WBS NO.:

1.1.C.C

FLUOR FERNALD

			400	490	\$2,260	\$650	150	2	\$1,000	540 260	\$150	\$2,100			510
TOTAL			\$10	\$2	\$ 52	· ·	\$47.450	•	\$ 1.	~ ~	\$	\$2,			22. \$7,640 23. 25. 25. 26. 27. 20. 200 23. 25. 25. 25. 25. 25. 25. 25. 25. 25. 25
)1															
	<u></u>					\$650	\$370	3	,	\$260	150	09	 		2
EQUIP	÷					<i>ن</i> و	٥	•		8	8	\$2			\$1,1
E															
]			9				5		}		-	\$300			8
MAT'L			\$10,400				\$10 400		•	•		\$			\$10,7
L	i T						1				_		 		4
s/c															50.53
S															
R.	Agrico Control			490	\$2,260		\$6.100	2	\$1,000	540		\$1,540		\neg	940
LABOR				\$2,	\$ 27	•	98	•	\$1,	€		\$1,			\$7,
	-					9 9	+			0	0		 		
	Equip					2800	3			2800	8.7				and and the second states and the second seconds and the second seconds and seconds and seconds are seconds and seconds and seconds are seconds and seconds are seconds and seconds are seconds and seconds are seconds are seconds and seconds are second are seconds are seconds are seconds are seconds are seconds are seconds are seconds are seconds are seconds are seconds are seconds are seconds are seconds are seconds are seconds are second are seconds are second are seconds are secon
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/UNIT	Mat'l		ģ												33.4
COST/UNIT	S/C														9. O.
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	Labor														交叉
Н				88	22.65	}	\dagger		24.89	ဗ			 	\dashv	
S	Rate			24.	2 2	i			24	27.					147(p.5.3548)
MAN-HOURS	Total			9 5	2005	3	250	?	40	8		09			Seattle 20310
MAN-	Ţ				0 0		\downarrow				_				9. 18.
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TINO					Days					Days	Ŧ				2
QTY		,	-	ທີ່	ດເ	0.23		•	- 0	0.09				ļ	25
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ir Moni			/oni			16			5	16	16 at	о На			Jrect
Cable & Air Monitors			Air	SL		Cat 4			75 75	S Cat 4	Cat 4	rult t			total (
2			Relocation of Air Monitors	Electriclans	Laborers Operators	Backhoe Cat 416	Balocation of Air Monitore	5 \$	Electricians	Operators Backhoe Cat 416	Backhoe Cat 416 at	ž E			Sub
			catio	Elec E	rap O	Bac	oac Selection		Elec	Ope Back	Back	e fro			**
			Relo				Polo	Cable from Vault to Hand Bd	280			Cable from Vault to Haul Rd			**
ITEM	80.			۵ ۵	ء د)			۵	۵		·			13年の学生教徒を発表。Subtotal Direct.Cost を子ものできた。 Pode Net 3 LOT 3
													 		120

ACTIVITY DURATIONS FLUOR FERNALD

PROJECT:

OSDF BASELINE - Infrastructure FY08

ESTIMATE NO. C2 -01-05-08-18

CLIENT: WBS NO.: DOE 1.1.C.C DATE:

15-Aug-01 ESTIMATOR: RIS/DU

TASK NO.: CBSP1

LOCATION: FERNALD

	EST.	START	MID	COMPL.		
ACTIVITY	DATE	DATE	POINT	DATE	ACTIVITY	DURATION
						Each Year
Air Monitors	08-Aug-01	05-Aug-08	20-Aug-08	05-Sep-08	1.0	MONTHS
Liner			00-Jan-00		0.0	MONTHS
Video & Demob			00-Jan-00		0.0	MONTHS
TOTAL					1.0	MONTHS
					1.0	

Days per Schedule

> 32 100.0% 142 0.0% 36 0.0%

210

	DATE of EST. to MID-POINT				
	ACTIVITY DURATION				
a.	84.5	MONTHS			
b.	0	MONTHS			

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. to MID-POINT ACTIVITY DURATION		
0	MONTHS	

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

.

ESTIMATE SUMMARY SHEET

PROJECT:

OSDF BASELINE - Infrastructure FY09 R1

ESTIMATE #: C2-01-05-08-19 R1 CLIENT: WBS #:

DOE 1.1.C.C FLUOR FERNALD

DATE:

15-Aug-01 ESTIMATOR: RIS/DU

LOCATION: FERNALD

TASK NO.: CBSP1

ITEM DESCRIPTION	M/H	RATE	LABOR\$	S/C \$	MAT'L \$	EQUIP. \$	TOTAL \$
Laurence & Board				65.070			65.07 0
Insurance & Bond		l		\$5,970		Ī	\$5,970
Task 1 - Submittals	l			\$35,510	·	į	Not Required \$35,510
Overhead and Profit	158		\$3,600	\$5,500	\$500	\$500	\$10,100
MOBILIZATION	136		\$3,000	\$3,300	\$300	\$300	\$10,100
D&D of OSDF Infrastructure Facility	2,430		\$53,730		\$2, 550	\$58,589	\$114,869
							·
Project Staffing							Not Required
DEMOBILIZATION	. 390		\$8,800	\$2,400			\$11,200
DIRECT FIELD COSTS TOTAL	2,978	\$22.21	\$66,130	\$49,380	\$3,050	\$59,089	\$177,649
SUPERVISION - CONTRACTOR							
SMALL TOOLS & CONSUMABLES	-	-	-		\$1,000		\$1,000
MISC. EQUIP. RENTAL	-	-	-				
TEMPORARY FACILITIES incl w/Mobilization							
TEMPORARY UTILITY HOOK-UP incl w/Mobilzation	58		\$1,300		\$700		\$2,000
JOB CLEAN-UP incl w/Job Close-out	_	_	_				
PER DIEM / SUBSISTANCE	_	_	_				
HEALTH PHYSICS S/C incl w/Submittals							
CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su			1.				
PAYROLL BURDENS & BENEFITS	-	-	\$38,400				\$38,400
OVERHEAD & PROFIT	-	-	•				
BOND		-	-				
SALES TAX	-	<u> </u>	-		\$300	\$3,500	\$3,800
INDIRECT FIELD COSTS TOTAL	58		\$39,700		\$2,000	\$3,500	\$45,200
DIRECT & INDIRECT FIELD COSTS TOTAL	3,036	\$34.86	\$105,830	\$49,380	\$5,050		\$222,849
TARGET ESTIMATE			(FY 01 DC) I ARSI			\$222,800

ESTIMATE PERFORMED BY ESTIMATING SERVICES

ESTIN	TATE SUMN	TARY SHE	EET			
PROJECT: OSDF BASELINE - Infrastructure FY09 R1					DATE:	15-Aug-01
ESTIMATE NO. C2-01-05-08-19 R1	FACTO	RS			ESTIMATOR:	RIS/DU
CLIENT: DOE WBS NO.: 1.1.C.C					LOCATION: TASK NO.:	FERNALD CBSP1
FIXED PRICE S	LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE\$	TOTAL \$
DFC DOLLARS	\$66,130	\$49,380	\$3,050	\$59,089		\$177,649
IFC COST FACTOR	1.6003		1.5574	1.0000	-	
BOND + OVERHEAD & PROFIT COST FACTOR	1.0000	1.0000		1.0000		
SALES TAX		-	1.0600	1.0600	1.0600	
DIRECT FIELD COST FACTOR =	1.6003	1.0000	1.6508	1.0600	1.0600	
BASE ESTIMATE \$'S	\$105,830	\$49,380	\$5,035	\$62,634		\$222,879
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
TARGET ESTIMATE FACTOR	1.6003	1.0000	1.6508	1.0600	1.0600	
FPS TARGET ESTIMATE (FY00 \$)	\$105,830	\$49,380	\$5,035	\$62,634		\$222,879

IF THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

NOTE:

PROJECT:	OSDF BASELINE - Infrastructure FY09 R1 C2-01-05-08-19 R1		ECT FIELD	MARY SHE	= E i		DATE: ESTIMATOR:	15-Aug-01 RIS/DU
ESTIMATE NO: CLIENT: WBS NO.:	DOE 1.1.C.C		/FACT				LOCATION: TASK NO.:	FERNALD CBSP1
PAY ITEM NO.			LABOR \$	S/C \$	MAT'L.\$	EQUIP. \$	PPE\$	TOTAL \$
			(ASSIGN OR	PRORATE PP	E MAT'L.\$'S)-	->>		
	Insurance & Bond Task 1 - Submittals			5970 \$5,970				\$5,9
	Overhead and Profit			35510 \$35,510				\$35,5
	MOBILIZATION		3600 \$5,760	5500 \$5,500		ì		\$12,6
						·		
					·			
		٠						
	D&D of OSDF Infrastructure Facility		53730 \$85,990		2550 \$4,210		1 .	\$152,3
	·							
	Project Staffing							
	DEMOBILIZATION		8800 \$14,080			·	11200	\$16,4

		•		
			•	
	•			

CONTRACTOR - Stated in FY01 DOLLARS

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DETAIL ESTIMATE WORKSHEETS

FLUOR FERNALD PROJECT: OSDF BASELINE - Infrastructure FY09 R1
ESTIMATE NO.: C2-01-05-08-19 R1
CLIENT: DOE
WBS NO.: 1.1.C.C

ITEM NO.

Г	-		0		0	-	 	-	6		 		•	Ta
	TOTAL		\$5,970	Not Required	\$35,510	\$10,100			\$114,869			Not Required	\$11,200	5477 EA
	EQUIP	· 10 · 10 · 10 · 10 · 10 · 10 · 10 · 10				\$500			\$58,589					2 49.380 0 2 3.050 Days 69.089 089 2477 649
	MAT'L					\$500			\$2,550					3.050
	S/C	94085025893	\$5,970		. \$35,510	\$5,500							2,400	49.380
	LABOR					\$3,600			\$53,730				8,800	Sec 66.130
		Equip												N. Charles
	JUNIT	Mat'i						•						11 45 12 2
	COST / UNIT	S/C												2.89,440
		Labor									 			2.50
	S	Rate												32.0898-1.08
	MAN-HOURS	Total				158			2,430				390	. 2978
	Ź	Unit												LACKS-04.3
	LIND											ired		10
	ΩTΥ			Not Required								 Not Required	-	Township.
	SUMMARY		Insurance & Bond	Task 1 - Submittals	Overhead and Profit	MOBILIZATION			D&D of OSDF Infrastructure Facility			Project Staffing	DEMOBILIZATION	Salititotal Direct Costs with the Costs of t
ſ	×	6					 			 		 		1 ੰ

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY09 R1
ESTIMATE NO.: C2-01-05-08-19 R1
CLIENT: DOE
WBS NO.: 1.1.C.C

FLUOR FERNALD

_								
TOTAL		\$5,970	\$40,500 \$25,310 \$10,640 \$4,250 \$3,600		Not Required	\$35,510		
EQUIP	を いっぱったい 会							
MAT'L								
S/C	- 1	026'5\$			· · · · · · · · · · · · · · · · · · ·	\$35,510	·	
LABOR			\$40,500 \$25,310 \$10,640 \$4,250 \$3,600	\$800				
	Equip							
JNIT	Mat'i							
COST/UNIT	s/c	COST THRU OH & P 213083						
	Labor							
	Rate		50.62 50.62 23.64 33.70 50.00					
MAN-HOURS	Total		800 500 450 126 72		χ. Ω.			
Σ	Unit		05 81 81 81			20%		
TINO			E E E E E					
OTY			16 100 25 7					
Insurance & Bond. OH & P		Insurance & Bond Performance bond Insurance Sub-total 2.6%	Task 1 · Submittals Plans Technical submittels Site access & GET traing, CM etc Site access & GET traing, PM, CM etc Site access & GET traing, PM, CM etc Site access & GET traing, Surveyers & others		Sub-total	Overhead and Profit		
ITEM	Š		0000					

CONTRACTOR - Stated in FY01 DOLLARS

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY09 R1 ESTIMATE NO.: C2-01-05-08-19 R1 CLIENT: DOE

1.1.C.C WBS NO.:

FLUOR FERNALD

	00000	0 000	o I	Ω.
TOTAL	\$3,000 \$2,800 \$60 \$50 \$50	\$10,100 \$500 \$2,700 \$7,800 \$200	\$11,200	\$21,32
EQUIP	\$200	\$\$00		1 2011 17 2011 2,420 2012 2013 17:885 245 250 2017 2017 2017 2017 2017 2017 2017 201
MAT'L	\$500			350 × 520
S/C	\$3,000 \$60 \$10 \$2,400	\$5,500	\$2,400	288'2'
LABOR	\$1,800	\$3,600 \$500 \$2,700 \$5,400 \$200	\$8,800	12,420
Equip				
COST/UNIT				R - (1976) - 3
L		200		
Labor	. 6 4	0 0 0 0 0		S. Williams
URS	0 8	158 20 22.69 22.69 120 22.69 240 22.69 10 22.69	0000	Ser. 548 Sep. 25.
MAN-HOURS	0 8	12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
I ion				SE RESERVE
Š	MO MO LS LS LS MTH MTH	L LS LS LS LS LS LS LS LS LS LS LS LS LS		2 45 (Section)
QTY	2	1 21 12 1		3862 estadas
Mobilization & Demobilization	MOBILIZATION S/C Office Trailer Support trailer 1 reqd Surveying Other misc. requirements as required. Portable toilets Potable water, Allow 5jug/mth, \$8/jug Mobilize contractor equipment	Complete Pur Remove Trail Remove all U Decontaminat Loadout contr	DEMOBILIZATION	প্রস্তুত্ত Mobilization & Demobilization দিয়েজ্য
	٥٥٥٥٥			14. W.

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE - Infrastructure FY09 R1
ESTIMATE NO.: C2-01-05-08-19 R1
CLIENT: DOE
WBS NO.: 1.1.C.C

FLUOR FERNALD

ITEM	ITEM D&D of OSDF Infrastructure Facility	OTY	LINO	MA	MAN-HOURS	SS		COST/UNIT	UNIT	Ī	LABOR	S/C	MAT'L	EQUIP	TOTAL
Š.		4		Cnit	Total	Rate	Labor	S/C	Mat'i	Equip	\$477 37 44	SEE 100	衛門以外衛門		17 S. 17 S. 18 S. 18
	Task 13														
	D&D of OSDF infrastructure Facility														
	Remove HDPE 4"														
	15,000 lf (10days)														
		128	È	1.0						34.61				\$4,412	. \$4,412
Ę.	_	150	È	1.0	150	24.57					\$3,690				\$3,690
	ROB Truck	128	È	1.0						67.10				\$8,555	\$8,555
٦ و	Laborer	150	È	4.0	009	20.59					\$12,350				\$12,350
뒽	Teamster	150	È	0.5	75	20.78					\$1,560				\$1,560
	Cooping Polarimolace Chemod														
	Topon (772)														
	Councy (ruays)	- 6	<u>.</u>	,						7,				4	
	CAI 330 excavator	8 8	Ξ.	2 (4				40,00	478'CA
		09	=	0.						63.28				\$3,765	\$3,765
<u>E</u>	<u> </u>	02	È	2.0	140	24.57			-		\$3,440				\$3,440
	Volvo A30 trucks	9	È	3.0						73.62				\$13,141	\$13,141
<u>E</u>	Teamster	2	ž	3.0	210	20.78					\$4,360				\$4,360
Ę	Laborer	02	ž	2.0	140	20.59					\$2,880	\			\$2,880
Ð.	Pipefitter	2	È	1.0	20	29.03					\$2,030				\$2,030
Đ.	Teamster	2	Ĕ	2.0	140	20.78					\$2,910				\$2,910
	CAT 613 water wagon	56	È	1.0						83.19				\$2,121	\$2,121
<u>۾</u>	Operator	30	Ĕ	1.0	စ္တ	24.57					\$740				\$740
	Demolition & disposal							-							
	(2days)												******		-
	CAT 330 excavator	17	È	0.1						99.74				\$1,696	\$1,696
	CAT D6 dozer	4	È	0.						63.28				\$1,076	\$1,076
GE.	Operator	20	È	2.0	9	24.57					\$980	·			\$980
	ROB Truck	17	È	0.						67.10				\$1,141	\$1,141
<u></u>	Teamster	20	È	0.	2	20.78					\$420				\$420
5	Laborer	50	È	2.0	40	20.59	,				\$820			٠	\$820
	Remove above ground elect	, , , , , , , , , , , , , , , , , , , 										der to the same			•
	power poles & air monitors														
1				,											
<u>E</u>		0 3	E .	2.0	8	24.93			0		\$1,990				\$1,990
		34	Έ.	0.					75.00				\$2,550		\$2,550
£	Laborer	9	È	2.0	8	20.59					\$1,650				\$1,650

DETAIL ESTIMATE WORKSHEETS

	「1005 FNKNALD	
PROJECT: OSDF BASELINE - Infrastructure FY09 R1 ESTIMATE NO.: C2-01-05-08-19 R1	DOE	1.1.6.0
PROJECT: ESTIMATE NO	CLIENT:	WBS NO.:

Unit Total Rate Labor S/C Mari Equip S1,160	恒	ITEM D&D of OSDF Infrastructure Facility	DIN UNIT		MAN-HOURS	SS		COST/UNIT	ZIT.	F	LABOR	S/C	MAT'L	EQUIP	TOTAL
20 hr 2.0 40 29.03 \$1,160 \$1,000 \$1,0	ġ			┵	Total	Rate	Labor	H	=	din					
10		Disconnect utilities from trailer (1 day)					· · · · · · · · · · · · · · · · · · ·								
43 hr 1.0 43 hr 1.0 50 hr 2.0 100 24.57 50 hr 2.0 100 24.57 50 hr 1.0 50 hr 2.0 100 20.59 17 hr 1.0 50 hr 2.0 40 20.59 18 hr 1.0 50 hr 2.0 40 20.59 19 hr 1.0 50 hr 2.0 40 20.59 50 hr 2.0 40 20.59 50 hr 2.0 40 20.59 50 hr 2.0 40 20.59 50 hr 2.0 40 20.59 51 hr 2.0 40 20.59 52 hr 2.0 40 20.59 53 hr 2.0 40 20.59 54 hr 2.0 40 20.59 55 hr 2.0 40 20.59 56 hr 2.0 40 20.59 57 hr 2.0 40 20.59 58 hr 2.0 40 20.59 59 hr 2.0 40 20.59 59 hr 2.0 40 20.59 50 hr 2.0 40 20.59 50 hr 2.0 40 20.59 51 hr 2.0 40 20.59 52 hr 2.0 40 20.59 53 hr 2.0 40 20.59	문 달	Pipefitter Electrician				29.03					\$1,160				\$1,160
size reduction (564xy))					1									
43 hr 1.0		Demo & size reduction													
43 hr 1.0 20 24.57 67.10 82.460 82.460 85.0 40 24.57 67.10 81.040		of trailer (5days)								- 7.				000	000
50 hr 1.0 50 20.78 67.10 85.460 87.4		CAI 330 excavator w/ snear							1 C	4 7.7				\$4,239	\$4,239
10	•					[<u>+</u>				\$3,278	\$3,278
50 hr 1.0 50 20.78 51,040 52,000 50 100 20.59 51,040 52,00	Ę			-		24.5/				,	\$2,460				\$2,460
50 hr 2.0 100 20.59 52.000 17 hr 1.0 20 40 24.57 77.14 \$980 20 hr 2.0 40 24.57 52.40 10 hr 0.5 5 22.40 50 hr 2.0 40 24.57 52.40 50 hr 2.0 40 24.57 52.40 50 hr 2.0 40 24.57 52.40 50 hr 2.0 40 24.57 52.40 50 hr 2.0 40 20.59 5820 50 hr 2.0 40 20.59 5820 50 hr 2.0 40 20.59 5820 50 hr 2.0 40 20.59 52.40 50 hr 2.0 40 20.59 52.40 50 hr 2.0 40 20.59 52.40	- 1	_				20.70			-	9.	070			759'74	\$2,852
17 hr 1.0 17.14 \$990 17.14 \$990 17.14 \$990 17.14 \$990 10 hr 2.0 40 24.57 \$52240 10 hr 2.0 40 24.57 \$990 20 hr 2.0 40 24.57 \$990 20 hr 2.0 40 24.57 \$990 20 hr 2.0 40 24.57 \$990 20 hr 2.0 40 20.59 \$820 20 hr 2.0 40 24.57 \$990 20 hr 2.0 40 20.59 \$820 20 hr 2.0 40 20.59 \$820 20 hr 2.0 40 20.59 \$820 20 hr 2.0 40 20.59 \$820 20 hr 2.0 40 20.59 \$820 20 hr 2.0 40 20.59 \$820 20 hr 2.0 40 20.59 \$820 20 hr 2.0 40 20.59 \$820 20 hr 2.0 40 20.59 \$820 20 hr 2.0 40 20.59 \$820 20 hr 2.0 40 20.59 \$820 20 hr 2.0 50 \$8	ב ב					20.70					\$2,040				\$2.060
17 hr 1.0 20 hr 2.0 17.14 \$980 20 hr 2.0 10 hr 2.0 10 hr 0.5 20 hr 2.0 10 hr 2.0 20 hr 2.0 10 hr 2.0 20 hr 2.0	3					20.07))				2001
17 hr 1.0		Demo & size reduct of compactor (2day)													
17 hr 1.0		CAT 826 compactor													
17 hr 1.0 20 20.78 \$820 \$820 \$820 \$10 hr 2.0 40 24.57 \$77.14 \$980 \$820 \$20 hr 2.0 40 20.59 \$820 \$820 \$10 hr 2.0 40 20.59 \$99.74 \$77.14 \$980 \$10 hr 2.0 40 24.57 \$77.14 \$980 \$10 hr 2.0 40 24.57 \$820 \$10 hr 2.0 40 20.59 \$820 \$10 hr 2.0 40 20.59 \$820 \$10 hr 2.0 40 20.59 \$820 \$10 hr 2.0 40 20.59 \$10 hr 2.0 40 40 40 40 40 40 40 40 40 40 40 40 40		CAT 330 excavator w/ shear		_					<u>-</u>	9.74				\$1,696	\$1,696
20 hr 2.0 40 24.57 \$\$\$980 \$\$\$17 hr 1.0 20 20.78 \$\$\$\$10 \$\$\$\$110 \$\$\$110 \$\$\$\$110 \$\$\$\$110 \$\$\$\$110 \$\$\$\$\$110 \$\$\$\$\$110 \$\$\$\$\$\$110 \$\$\$\$\$\$\$\$		CAT 950 loader							_	7.14				\$1,311	\$1,311
17 hr 1.0 20 20.78 \$420 20 hr 2.0 40 20.59 \$110 10 hr 0.5 5 22.40 \$110 17 hr 1.0 40 24.57 \$180 20 hr 2.0 40 24.57 \$180 50 hr 2.0 100 20.59 \$22,060 4.28 \$2,060	둳					24.57	-				\$980				\$980
20 hr 2.0 20.78 \$420 10 hr 2.0 40 20.59 \$110 17 hr 1.0 40 24.57 \$99.74 17.14 \$980 20 hr 2.0 40 24.57 \$880 20 hr 2.0 100 20.59 \$82,060 4.28 \$2,060		ROB truck													
20 hr 2.0 40 20.59 \$820 10 hr 0.5 5 22.40 \$\$110 17 hr 1.0 40 24.57 \$99.74 20 hr 2.0 40 24.57 \$8820 20 hr 2.0 100 20.59 \$\$2,060 4.28 \$2,060 4.28 \$2,060	둳					20.78					\$420				\$420
10 hr 0.5 5 22.40 \$100 \$100 \$110	둳					20.59				-	\$820	,			\$820
17 hr 1.0 17.14 \$99.74 77.14 \$980 20 hr 2.0 40 24.57 \$820 20 hr 2.0 100 20.59 \$2,060 4.28 \$2,060	둳	Mechanic				22.40					\$110				\$110
17 hr 1.0														-	
17 hr 1.0 20 hr 2.0 43 hr 2.0 43 hr 2.0 50 hr 2.0 4.28 5.2,060 5.2,060		Demo & size of 4 spec. ROB's								7.7				000	000
20 hr 2.0 40 24.57 \$\$980 20 hr 2.0 40 20.59 \$\$820 50 hr 2.0 100 20.59 \$\$2,060 4.28 \$\$2,060		CA1 330 excavator w/ snear					•		o i 	4.7				060'L\$	069'L¢
20 hr 2.0 40 24.57 \$980 20 hr 2.0 40 20.59 \$820 50 hr 2.0 100 20.59 \$2,060 43 hr 2.0 100 20.59 \$4.28									_	7.14				\$1,311	\$1,311
20 hr 2.0 40 20.59 \$820 50 hr 2.0 100 20.59 \$2,060 43 hr 2.0 4.28 \$2,060	둳					24.57					\$980				\$980
50 hr 2.0 100 20.59 4.28 4.28 5.060 5.000	5					20.59					\$820				\$820
50 hr 2.0 100 20.59 4.28 \$2,060 \$20.60 \$3.00		D&D of Equip											•		
43 hr 2.0	ō					20.59					\$2,060				\$2,060
2014 201 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-		Pressure washer								4.28				\$364	\$364
2012/2014 LOT. CHOUS 1.2,430 CHOUS CHOOS CHOOS CHOOS CHOOS CHOOS CHOOS															
		📾 D&D of OSDF Infrastructure Facility 🗈	2	112	2,430						53,730	WANTED IN	2,550	1.1 2.1 2,550 particles 8,589 agrees 114,869	\$114,869

ACTIVITY DURATIONS FLUOR FERNALD

PROJECT: OSDF BASELINE - Infrastructure FY09 R1

ESTIMATE NO. C2-01-05-08-19 R1

CLIENT:

DOE

WBS NO.: 1.1.C.C

DATE: 15-Aug-01 ESTIMATOR: RIS/DU LOCATION: FERNALD TASK NO.: CBSP1

	EST.	START	MID	COMPL.		
ACTIVITY	DATE	DATE	POINT	DATE	ACTIVITY	DURATION
						Each Year
Monitoring Well	08-Aug-01	01-May-09	23-May-09	15-Jun-09	1.5	MONTHS
Liner			00-Jan-00		0.0	MONTHS
Video & Demob			00-Jan-00		0.0	MONTHS
TOTAL					1.5	MONTHS
					1.0	

Days per Schedule

> 32 100.0% 142 0.0% 36 0.0%

210

DATE of EST. to MID-POINT
ACTIVITY DURATION
a. 93.6 MONTHS
b. 0 MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. t ACTIVITY DURA	
0	MONTHS

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

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					APPENDIX	DIX . A.					+	
PROJECT: OSDF BASELINE -		Infrastructure FY03 R1	33 R1		SITE SPECIFIC	ECIFIC					DATE: 15-Aug.	15-Aug-01
CLIENT: DOE WBS NO.: 1.1.C.C	13-51			EFFICIEN	EFFICIENCY/MULTIPLIER ANALYSIS	PLIER ANA	LYSIS				LOCATION: TASK NO.:	FERNALD CBSP1
PERCENT OF INFLUEN	LUENCE O	CE ON CHART MANHOURS	ANHOURS									
	40%	20%	%09	70%	80%	%06	100%	105%	110%	% OF NFLUENCE	WT'D VALUE	PROD. RESULT
CRAFT SKILL (NOTE 1)	POOR			FAIR			STD	V.G00D	EXCELLEN	%0.06	12.0%	0.108
CRAFT AVAIL.(NOTE 1)		Poor		FAIR			STD			100.0%	8.0%	0.08
CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			80.0%	20.0%	0.16
PLANT ELEVATION		OVER 10,000FT			5,000° TO 10,000 FT		UNDER 5,000 FT			100.0%	5.0%	0.02
WORK SPACE	T 11111	MIII TIDI E SHIETS.	,	200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	0.7
WORK WEEK						5-10s	5-10s per Means R010-110	0-110		85.0%	15.0%	0.1275
50 HOUR WORK WEEK	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	<i>Millin (Millingen) (Millingen)</i> ULTIPLE-SHIFT <i>Millingen)</i>		OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS				0.0%	0.0%	0
60 HOUR WORK WEEK		minimum minimum minimum minimum	OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS					0.0%	0.0%	0
SHIFTWORK 2ND SHIFT 3RD SHIFT			3RD SHIFT		2ND SHIFT		OR ONE SHIFT ONLY			100.0%	3.0%	0.03
PROJECT SIZE					400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		105.0%	4.0%	0.042
PLANT TYPE				REVAMP ONLY	REVAMP & NEW	NEW IN EXIST PLT	GRASS ROOTS			95.0%	8.0%	0.076
AREA/UNION INFLUENCE	STRONG		MILD		SOME		NONE			80.0%	10.0%	0.08
NOTES		ç									100.0%	90.4%
2. FOR EXTERIOR WORK ONLY	NI Y	ì			EFFICIENCY		(AS A % OFF CHART MANHOURS)	' MANHOUR	(S)		٠	90.4%
	į				MULTIPLIE	R - (TO BE	MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S)	HART M.H.	S TO OBTA	IN SITE M.	1.'S)	1.11

	·			

EFFICIENCY FACTORS

BASELINE - Infrastructure FY03 R1
-05-08-13-R1

FLUOR FERNALD

DATE: 15-Aug-01 ESTIMATOR: RIS/DU LOCATION: FERNALD TASK NO.: CBSP1

PLE:

DARD CHART MANHOURS =

NET

IENCY FACTORS:

NDIX A)

SPECIFIC (SEE APPENDIX A)
BASE UNIT MANHOURS

11.0

TIME PRODUCTIVITY FACTOR

0.00% 0

DETAIL WORKSHEET BACK-UP)

111

SPECIFIC (confined space, elevation, congestion, etc.)

0.0% _____0

PECIFIC (Based on current data

stimating knowledge)

				PPE LE	VEL					
		D	Mod.	'D'	Mod.	"C"	C		C+	•
VITY HOURS		MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's
/ ADD MH's	5.00%	6	27.00%	30	64.00%	71	72.00%	80	96.00%	10
)/TOTAL HR	1.05	116.6	1.27	141	1.64	182	1.72	190.9	1.96	217.0
/SITE PROD.	1.1655		1.4097		1.8204		1.9092		2.1756	
								į		
								ı		
: Use the De	fault Produ	ctivity Factor of	mC' for wo	rking				ı		
in a contan	ninated area I	if the Safety Le ا	vel cannot l	be determin I	ed.					
D FERNALD EST	ا MATING SEF! أ	RVICES REFERENC	E MANUAL IN	1-6006 8.10)						
	•	ic PPE level divi	•	7	,				·	
		mine material co	ost of PPE's						į	
APPENDIX C	- HEALTH	PHYSICS)						i		
	12.0	Man Days	14.0	Man Days	18.0	Man Days	19.0	Man Days	22.0	Man Days

E EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY
UGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL,
STAIN A MORE ACCURATE ACCOUNT OF OVERALL
IENCY IMPACT DUE TO PPE REQUIREMENTS IN
LING CONTAMINATED AND HAZARDOUS WASTE.

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT:

OSDF BASELINE - Infrastructure FY03 R1

CLIENT:

ESTIMATE NO. C2-01-05-08-13-R1 DOE

WBS NO .:

1.1.C.C

DATE:

15-Aug-01

ESTIMATOR: LOCATION:

RIS/DU **FERNALD**

TASK NO .:

CBSP1

PPE MULTIPLIER DEVELOPEMENT

		D	mD	mC	С	C+
CREW SIZE & MAKE-UP	STANDARD	7	7	7	7	7
	WORKER-BUDDY	o	o	o	o	0
	SUPPORT TEAM	o	o	O	o	0
	TOTAL CREW	7	7	7	7	7
CREW SIZE RATIO		1.00	1.00	1.00	1.00	1.00
AVAILABLE WORK TIME FA	ACTOR	0.95	0.79	0.71	0.71	0.68
PPE LABOR PRODUCTIVIT	Y FACTOR	1	1	0.86	0.82	0.75
NET PRODUCTIVITY RATIO)	0.95	0.79	0.611	0.582	0.51
NET PRODUCTIVITY MULT	TPLIER	1.05	1.27	1.64	1.72	1.96

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Selg. Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C. The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

AVAIL ADI E WOOM THIS SACTOR						
AVAILABLE WORK TIME FACTOR		D	mD	mC	С	C+
TOTAL WORK MINUTES per [5 - 10's		600	600	600	600	600
ADDITN'L.SITE SAFETY MEETINGS NOT INCLD. IN BA	SQUANTITY	1	1	1	1	1
	MINUTES	25	25	25	25	25
TOTAL		25	25	25	25	25
PPE DON & DOFFING	QUANTITY	0	0	3	3	3
(ADJUST LEVEL D per WORK PLAN)	MINUTES	0	o	15	15	20
TOTAL			0	45	45	60
WORK BREAKS	QUANTITY	N/A	2	2	2	2
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	15
TOTAL			30	30	30	30
MOBILIZATION - ROUND TRIPS	QUANTITY	N/A	4	4	4	4
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	15
TOTAL			60	60	60	60
COOLDOWNS PER DAY	QUANTITY	2	3	4	4	4
** (2 OUT OF 8 MONTHS) 25.009	6 MINUTES	10	12	15	15	· 15
TOTAL	T .	5	9	15	15	15
AIR TANK REPLACEMENT	QUANTITY	N/A	N/A	N/A	N/A	N/A
	MINUTES	N/A	N/A	N/A	N/A	N/A
TOTAL					Ī	
AVAILABLE WORK TIME		570	476	425	425	410
AVAILABLE WORK TIME FACTOR		0.95	0.79	0.71	0.71	0.68

NOTE: Adjust 'Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's. Any other circumstances, over-ride the minutes per day.

^{**} Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances. Changed to July & August over an 8 mth period.

PROJECT: ESTIMATE #: CLIENT: WBS #:	OSDF B DOE	BASELINE	- Infrastri	DISTRIBUTE OSDF BASELINE - Infrastructure Rev1 Aug 2001 DOE FLUO	SIBUTE 1 Aug 2001	COST R FE	IBUTE COST BY ACTIVI Aug 2001 UOR FERNALD	DISTRIBUTE COST BY ACTIVITY PER FY ture Rev1 Aug 2001 FLUOR FERNALD	R FY	DATE: ESTIMATOR: LOCATION: TASK NO:	15-Aug-01 RIS/DU FERNALD
Per est		Bond 25160	Submt 21390	<u>0&P</u> 149770	Mob 43060	Demob 18080	Reloc Access 567930		Temp Leach 119530		944920
Reloc Access Temp Leach Rmvl		25160	21390		43060	18080	567930		119530		657540 82.7% 137610 17.3% 795150
Reloc Access total Temp Leach Rmvl total	total	\$25,160	\$21,390	\$ 123,851 \$25,919	\$43,060	\$18,080	\$ 567,930		\$ 119,630		781391 163529 944920
FY04											
Per est		Bond 6460	Submt	08P 38450	Mob 7170	<u>Demob</u> 16490	Elect Air Montr 76920	Elect Relo Montr 28500	Reloc Stkpl 66760	Survey 3000	243750
Elect Air Montr Reloc Stkpl Elect Relo Montr		6460			7170	16490	76920	28500	66760	1340 1163 497	91890 44.8% 67923 33.1% 45.487 22.2% 205300
Elect Air Montr Reloc Stkpl Elect Relo Montr	total total total	\$ 6,460		\$17,210 \$12,721 \$ 8,519	\$ 7,170	\$16,490	\$76,920	\$ 28,500	\$66,760	\$ 1,340 \$ 1,163 \$ 497	\$ 109,100 \$ 80,644 \$ 54,006

	DISTRIBUTE COST BY ACTIVITY PER FY		
PROJECT:	OSDF BASELINE - Infrastructure Rev1 Aug 2001	DATE:	15-Aug-0
ESTIMATE #:		ESTIMATOR:	RIS/DU
CLIENT:	DOE	LOCATION:	FERNAI
WBS #:	1.1.C.C	TASK NO.:	CBSP1

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FY05									
Per est	Bond 19440	Submt	0 <u>8P</u> 115690	Mob 7160	<u>Demob</u> 16480	Air Montr 28280	Survey 17000	OMTA Contr 534370	738420
Air Monitor OMTA Containers	19440			7160	16480	28280	854 16146	534370	65054 10.4% 557676 89.6% 622730
Air Monitor to OMTA Containers to	total \$19,440 total		\$12,086 \$103,604	\$ 7,160	\$16,480	\$16,480 \$28,280	\$ 854 \$ 16,146	\$ 534,370	\$ 77,140 \$ 661,280 738420

FY06														
Per est		Bond 9290	Submit 52090	<u>0&P</u> 55290	Mob 10490	Demob 16220	Air Montr 28440	17000		eachate 51980	H20 Well 94290	Wheel Wash 8690	343780	
Air Montr Leachate H2O Well Wheel Wash		9290	52090		10490	16220	28440	2636 4818 8740 806		51980	94290	8690	47296 128668 103030 9496 288490	16.4% 44.6% 35.7% 3.3%
Air Montr Leachate H2O Well Wheel Wash	total total total	\$ 9,290	\$52,090	\$ 9,064 \$24,660 \$19,746 \$ 1,820	\$10,490	\$16,220	\$28,440	∾ ∾ ∾ ∾ ∨ 4, ∞	2,636 4,818 \$: 8,740 806	\$51,980	\$94,290	8,690	\$ 56,361 \$ 153,328 \$ 122,776 \$ 11,315	

PROJECT:	OSDF	DISTRIBUTE OSDF BASELINE - Infrastructure Rev1 Aug 2001	- Infrastru	DISTR	IBUTE 1 Aug 2001	COST	ву Аст	DISTRIBUTE COST BY ACTIVITY PER FY ture Rev1 Aug 2001	R FY	DATE:	1
ESTIMATE #: CLIENT: WBS #:	DOE 1.1.C.C			FL	7	R FE	OR FERNALD	0		ESTIMATOR: LOCATION: TASK NO.:	RIS/DU FERNALD CBSP1
<u>FY07</u>											
Per est		Bond 5210	Submit	30980 30980	<u>Мов</u> 7180	Demob 16500	Air Montr 29280	<u>Survey</u> 10000	Leachate 95040		194190
Air Montr Leachate		5210			7180	16500	29280	2355 7645	95040		48135 29.5% 115075 70.5% 163210
Air Monitor Leachate	total	\$ 5,210		\$ 9,137 \$21,843	\$ 7,180	\$16,500	\$29,280 \$	2,355	\$95,040	·	\$ 57,272 \$ 136,918
			·								
<u>FY08</u>											
Per est		Bond 1010	Submit	080 6030	Mob 5100	Demob 4040	Relo Air Mntr 21780	•			37960
Relo Air Mntr		1010		6030	5100	4040	21780				37960 100%. 37960
Relo Air Mntr	total	\$ 1,010		\$ 6,030	\$ 5,100	\$ 4,040	\$21,780	·			\$ 37,960
<u>FY09</u>											
Per est		Bond 5970	Submit	<u>0&P</u> 35510	<u>Мов</u> 12620	<u>Demob</u> 16480	152300				222880
D&D OSDF		5970		35510	12620	16480	152300				222880 100% 222880
D&D OSDF	total	\$ 5,970		\$35,510	\$12,620	\$16,480	\$ 152,300				\$ 222,880

COMPARE MAY 2001 INFRASTRUCTURE BASELINE TO REVISION 1 AUG 2001

PROJECT: OSDF BASELINE - Infrastructure

ESTIMATE # C2-01-05-08

1.1.C.C DOE CLIENT: WBS #:

FERNALD

DATE:

15-Aug-01 ESTIMATOR: RIS

FERNALD LOCATION:

TASK NO.:

CBSP1

Aug (Rev 1) May

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944,900 243,800 935,000 278,000

738,500 755,600

343,700 356,500

194,200 211,100

38,000 222,800 73,100 226,600 03 05 05 07 08 09

\$2,725,900 \$ (110,000) \$ 2,835,900

CLTS1 ENHANCED PERMANENT LTS DESIGN FY01

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Page 1 of 1 PBS: WBS: CTRL ACCT:	OHFN03 1.1.C.C CLTS CLTS					UOF FE ESTIMATE SUF FOR ACTIVITY (1 FTE EQU	FIUOF FERNAID, INC. ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	Inc.				DATE: PROJECT CAM: PREPAR	DATE: PROJECT MGR: JD (CAM: JD (PREPARED BY: W. I FISCAL YEAR: 200
CHARGE NO.: CLIST COMMENT NO N/A Resource: SERV	SERVSUB	SUBS	GEOS	Class:	EOC: SUB		SUBCONTRACTORS						
Res Dept: 9 Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:	24. .: :24:	Oct 00- Sep 01 198,611.0 198,611.1 198,611	· **	Oct 01- Sep 02 0.0 198,611.0 0	Oct 02- Sep 03 0.0 198,611.0 0	Oct 03- Sep 04 0.0 198,611.0 0 198,611	Oct 04- Sep 05 0.0 198,611.0	Oct 05- Sep 06 0.0 198,611.0 0	Oct 06- Sep 07 0.0 198,611.0 0	Oct 07- Sep 08 0.0 198,611.0 0	Oct 08- Sep 09 0.0 198,611.0 0 198,611	Oct 09- Sep 10 0.0 198,611.0 0	
GRAND TOTALS: Yr Total Cost: Cum Total Cost:	ALS: t: ts:	Oct 00- Sep 01 198,611	-00 -01 -11 -11 -11	Oct 01- Sep 02 0 198,611	Oct 02- Sep 03 0 198,611	Oct 03- Sep 04 0	Oct 04- Sep 05 0 198,611	Oct 05- Sep 06 0 198,611	Oct 06- Sep 07 0 198,611	Oct 07- Sep 08 0 198,611	Oct 08- Sep 09 0 198,611	Oct 09- Sep 10 0 198,611	
CAM		2	H					CONT	CONTROL TEAM				

CLTS2

ENHANCED PERMANENT LTS CONSTRUCTION FY01

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Page 1 of 4												09/07/2001 9:48 AM
PBS: OHF	OHFN03				uor Fe	Fluor Fernald,	, Inc.					DATE: 05-Sep-01
WBS: 1.1.C.C CTRL ACCT: CLTS CHARGE NO: CLTS COMMENT NO N/A	1.1.C.C CLTS CLTS2 N/A				ESTIMATE SU FOR ACTIVITY (1 FTE EQU	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	SHEET ATING RS)					PROJECT MGR: JD Chiou CAM: JD Chiou PREPARED BY: W. F. Fick FISCAL YEAR: 2001
Resource: BUY Res Dept: 949	BUYCON 949	BUYER/CONTRACTS ADMN Overtime: FY01	ADMN Class:	EOC: ss: SAL	LABOR	SO.						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:		Oct 00- Sep 01 161.6 161.6 6,771	Oct 01- Sep 02 0.0 161.6 0 6,771	Oct 02- Sep 03 0.0 161.6 0	Oct 03- Sep 04 0.0 161.6 0	Oct 04- Sep 05 0.0 161.6 0,771	Oct 05- Sep 06 0.0 161.6 0	Oct 06- Sep 07 0.0 161.6 0,771	Oct 07- Sep 08 0.0 161.6 0	Oct 08- Sep 09 0.0 161.6 0	Oct 09- Sep 10 0.0 161.6 0	
Resource: CLE Res Dept: 949	CLERKS 949	CLERKS Overtime: FY01	Class:	EOC: ss: SAL	LABOR	OR						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:		Oct 00- Sep 01 12.6 12.6 301	Oct 01- Sep 02 0.0 12.6 0	Oct 02- Sep 03 0.0 12.6 0	Oct 03- Sep 04 0.0 12.6 0	Oct 04- Sep 05 0.0 12.6 0	Oct 05- Sep 06 0.0 12.6 0	Oct 06- Sep 07 0.0 12.6 0	Oct 07- Sep 08 0.0 12.6 0	Oct 08- Sep 09 0.0 12.6 0	Oct 09- Sep 10 0.0 12.6 0	
Resource: CNS Res Dept: 949	CNSCOD 949	CONSTRUCTION COORD Overtime: FY01	JRD Class:	EOC:	LABOR	OR						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:		Oct 00- Sep 01 715.9 715.9 22.722 22,722	Oct 01- Sep 02 0.0 715.9 0	Oct 02- Sep 03 0.0 715.9 0 22,722	Oct 03- Sep 04 0.0 715.9 0 22,722	Oct 04- Sep 05 0.0 715.9 0	Oct 05- Sep 06 0.0 715.9 0	Oct 06- Sep 07 0.0 715.9 0	Oct 07- Sep 08 0.0 715.9 0	Oct 08- Sep 09 0.0 715.9 0	Oct 09- Sep 10 0.0 715.9 0	
Resource: CNS Res Dept: 949	CNSENG 949	CONSTRUCTION ENG Overtime: FY01	Class:	EOC: ss: SAL	LABOR	S.						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:		Oct 00- Sep 01 1,308.1 1,308.1 71,292 71,292	Oct 01- Sep 02 0.0 1,308.1 0 71,292	Oct 02- Sep 03 0.0 1,308.1 0 71,292	Oct 03- Sep 04 0.0 1,308.1 0 71,292	Oct 04- Sep 05 0.0 1,308.1	Oct 05- Sep 06 0.0 1,308.1	Oct 06- Sep 07 0.0 1,308.1 0	Oct 07- Sep 08 0.0 1,308.1 0	Oct 08- Sep 09 0.0 1,308.1	Oct 09- Sep 10 0.0 1,308.1	
Resource: CNS Res Dept: 949	CNSMGR 949	CONSTRUCTION MGR Overtime: FY01	Class:	EOC: SAL	LABOR	SO.						

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	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
	Sep 01	20 dec	seb 03	Sep 04	seb des	sep 06	Sep 07	seb og	sep 09	Sep 10
Cum Hours:	379.2	379.2	379.2	379.2	379.2	379.2	379.2	379.2	379.2	379.2
Yr Total Cost:	23.514	0	0	0	0	0	0	0	0	0
Cum Total Cost:	23,514	23,514	23,514	23,514	23,514	23,514	23,514	23,514	23,514	23,514
Resource: DRFCAD Res Dept: 949	DRAFTER/CAD OPERATOR Overtime: FY01	RATOR Class:	EOC:	LABOR	OR					
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Oct 00- Sep 01 25.2 25.2 787	Oct 01- Sep 02 0.0 25.2 0	Oct 02- Sep 03 0.0 25.2 0	Oct 03- Sep 04 0.0 25.2 0	Oct 04- Sep 05 0.0 25.2 0	Oct 05- Sep 06 0.0 25.2 0	Oct 06- Sep 07 0.0 25.2 0	Oct 07- Sep 08 0.0 25.2 0	Oct 08- Sep 09 0.0 25.2 0	Oct 09- Sep 10 0.0 25.2 0
Resource: ENGINR Res Dept: 949	ENGINEER Overtime: FY01	Class:	EOC:	LABOR	S.					
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Oct 00- Sep 01 1,630.8 1,630.8 112,135	Oct 01- Sep 02 0.0 1,630.8 0	Oct 02- Sep 03 0.0 1,630.8 0 112,135	Oct 03- Sep 04 0.0 1,630.8 0 112,135	Oct 04- Sep 05 0.0 1,630.8 0	Oct 05- Sep 06 0.0 1,630.8 0	Oct 06- Sep 07 0.0 1,630.8 0	Oct 07- Sep 08 0.0 1,630.8 0 112,135	Oct 08- Sep 09 0.0 1,630.8 0 112,135	Oct 09- Sep 10 0.0 1,630.8 0
Resource: ENGMEC Res Dept: 949	ENGINEER MECH/PIPING Overtime: FY01	PING Class:	EOC:	LABOR	OR					
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Oct 00- Sep 01 733.0 733.0 45,579	Oct 01- Sep 02 0.0 733.0 0	Oct 02- Sep 03 0.0 733.0 0	Oct 03- Sep 04 0.0 733.0 0 45,579	Oct 04- Sep 05 0.0 733.0 0	Oct 05- Sep 06 0.0 733.0 0 45,579	Oct 06- Sep 07 0.0 733.0 0	Oct 07- Sep 08 0.0 733.0 0 45,579	Oct 08- Sep 09 0.0 733.0 0	Oct 09- Sep 10 0.0 733.0 0
Resource: FIELDSUB Res Dept: 949	FIELD SUBS Overtime: STAV	/ Class:	EOC:	SUB	SUBCONTRACTORS	60				
Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:	Oct 00- Sep 01 890,138.0 890,138 890,138	Oct 01- Sep 02 0.0 890,138.0 0 890,138	Oct 02- Sep 03 0.0 890,138.0 0	Oct 03- Sep 04 0.0 890,138.0 0 890,138	Oct 04- Sep 05 0.0 890,138.0 0 890,138	Oct 05- Sep 06 0.0 890,138.0 0 890,138	Oct 06- Sep 07 0.0 890,138.0 0 890,138	Oct 07- Sep 08 0.0 890,138.0 0 890,138	Oct 08- Sep 09 0.0 890,138.0 0	Oct 09- Sep 10 0.0 890,138.0 890,138
Resource: GLMNT Res Dept: 949	GEN LABOR MAINT Overtime: FY01	Class:	EOC:	LABOR	OR.					

Page 3 of 4										-		•
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:		Oct 00- Sep 01 708.0 708.0 17,303	Oct 01- Sep 02 0.0 708.0 0 17,303	Oct 02- Sep 03 0.0 708.0 0 17,303	Oct 03- Sep 04 0.0 708.0 0 17,303	Oct 04- Sep 05 0.0 708.0 0	Oct 05- Sep 06 0.0 708.0 0 17,303	Oct 06- Sep 07 0.0 708.0 0 17,303	Oct 07- Sep 08 0.0 708.0 0	Oct 08- Sep 09 0.0 708.0 0 17,303	Oct 09- Sep 10 0.0 708.0 0 17,303	
Resource: HRR Res Dept: 949	HRREP 949	HUMAN RESOURCE REP Overtime: FY01	(EP Class:	EOC: SAL	LABOR	Œ.						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:		Oct 00- Sep 01 145.5 145.5 5.227 5,227	Oct 01- Sep 02 0.0 145.5 0	Oct 02- Sep 03 0.0 145.5 0	Oct 03- Sep 04 0.0 145.5 0 5,227	Oct 04- Sep 05 0.0 145.5 0 5,227	Oct 05- Sep 06 0.0 145.5 0	Oct 06- Sep 07 0.0 145.5 0 5,227	Oct 07- Sep 08 0.0 145.5 0 5,227	Oct 08- Sep 09 0.0 145.5 0 5,227	Oct 09- Sep 10 0.0 145.5 0	
Resource: MA Res Dept: 948	MAT300 949	MATERIAL OBJCLASS300 Overtime:	5300 Class:	EOC: MAT	MATERIAL	RIAL						
Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:		Oct 00- Sep 01 6,657.0 6,657.0 6,657	Oct 01- Sep 02 0.0 6,657.0 0,657	Oct 02- Sep 03 0.0 6,657.0 0 6,657	Oct 03- Sep 04 0.0 6,657.0 0 6,657	Oct 04- Sep 05 0.0 6,657.0 0 6,657	Oct 05- Sep 06 0.0 6,657.0 6,657	Oct 06- Sep 07 0.0 6,657.0 0 6,657	Oct 07- Sep 08 0.0 6,657.0 0 6,657	Oct 08- Sep 09 0.0 6,657.0 0 6,657	Oct 09- Sep 10 0.0 6,657.0 0	
Resource: QAC Res Dept: 949	QACENG 949	QA ENGINEER Overtime: FY01	Class:	EOC: SAL	LABOR	Œ.						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:		Oct 00- Sep 01 1,068.2 1,068.2 49,095	Oct 01- Sep 02 0.0 1,068.2 0	Oct 02- Sep 03 0.0 1,068.2 0 49,095	Oct 03- Sep 04 0.0 1,068.2 0 49,095	Oct 04- Sep 05 0.0 1,068.2 0 49,095	Oct 05- Sep 06 0.0 1,068.2 0 49,095	Oct 06- Sep 07 0.0 1,068.2 0 49,095	Oct 07- Sep 08 0.0 1,068.2 0 49,095	Oct 08- Sep 09 0.0 1,068.2 0	Oct 09- Sep 10 0.0 1,068.2 0	
Resource: RAI Res Dept: 949	RADTEC 949	RAD TECH Overtime: FY01	Class:	EOC: SAL	LABOR	Œ.						
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:		Oct 00- Sep 01 44.3 44.3 1,510	Oct 01- Sep 02 0.0 44.3 0	Oct 02- Sep 03 0.0 44.3 0 1,510	Oct 03- Sep 04 0.0 44.3 0 1,510	Oct 04- Sep 05 0.0 44.3 0	Oct 05- Sep 06 0.0 44.3 0.1,510	Oct 06- Sep 07 0.0 44.3 0	Oct 07- Sep 08 0.0 44.3 0	Oct 08- Sep 09 0.0 44.3 0 1,510	Oct 09- Sep 10 0.0 44.3 0	
Resource: S&H Res Dept: 949	S&HENG 949	SAFETY ENGINEER Overtime: FY01	Class:	EOC: SAL	LABOR	κ						
S:\EST_FORMS\cits2abe	S\cits2abe	Oct 00-	Oct 01-	Oct 02-	Oct 03- INCLUDE	03- Oct 04- Oct 0 INCLUDES ESCALATION COSTS	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-	

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Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Sep 01 363.9 353.9 17,593 17,593	Sep 02 0.0 353.9 0 17,593	Sep 03 0.0 353.9 0 17,593	Sep 04 0.0 353.9 0 17,593	Sep 05 0.0 353.9 0 17,593	Sep 06 0.0 353.9 0 17,593	Sep 07 0.0 353.9 0 17,593	Sep 08 0.0 353.9 0 17,593	Sep 09 0.0 353.9 0 17,593	Sep 10 0.0 353.9 0 17,593
Resource: WSTENG Res Dept: 949	WASTE ENGINEER Overtime: FY01	01 Class:	EOC:		LABOR					
	Oct 00- Sep 01	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07.	Oct 08-	Oct 09-
Yr Hours:	44.3	0.0	0.0	0.0	3ep 03	on dae	/0 das	sep 08	Sep 09	Sep 10
um Hours:	44.3	44.3	44.3	44.3	44.3	44.3	44.3	44.3	443	44.3
Yr Total Cost:	2,261	0	0	0	0	0	0	0	0	0
Cum Total Cost:	2,261	2,261	2,261	2,261	2,261	2,261	2,261	2,261	2,261	2,261
GRAND TOTALS:										
	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
Yr Hours:	7,330.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	7,330.6	7,330.6	7,330.6	7,330.6	7,330.6	7,330.6	7,330.6	7,330.6	7,330.6	7.330.6
Yr Total Cost:	1,272,884	0	0	0	0	0	0	0	0	0
Cum Total Cost:	1,272,884	1,272,884	1,272,884	1,272,884	1,272,884	1,272,884	1,272,884	1,272,884	1,272,884	7,272,884
	10011	\						1		
CAM	1/1/2/1/1/					S	CONTROL TEAM		The state of the s	

SECTION 3 5.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: OSDF Infrastructure Construction	ıre Construction	PBS Number: 03			Total Baseline D	Total Baseline Dollars (Minimum Case):	ase):	\$3,130,059		
Evaluator: Wolinsky		WBS Number: 1.1.C.C	- 1							
CAM: J.D. Chiou	Date: 05/01/01	Numbe	ır: CBSP							
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost \$ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost \$ (Likeliest	Risk Critical Value	Risk Handling Strategy
Charge No. CBSP1, OSDF	Charge No. CBSP1, OSDF 1.11 1.12							·		
Infrastructure Construction							100			7
Relocate Access Control Facility including building new equipment wash	Land use committee doesn't approve currently proposed facility location	Additional cost due to less than optimal siting	Internal	\$10,000.00		20		\$2,000.00	_	Accept
Relocate Access Control Facility including building new equipment wash	Unexpected discovery of Schedul cultural resources requires months sampling and documentation	Schedule delay of 2 months	Internal	\$100,000.00	2	10		\$10,000.00	2	Accept
Relocate Access Control Facility including building new equipment wash	Unforseen subsurface conditions requires soil removal and replacement	Schedule delay of 2 weeks plus replacement of soil in excavated area	Internal	\$25,000.00		93		\$7,500.00	-	Accept
Relocate Air Monitors including power supply	Power supply not available Extra cost to run as planned permanent powe extra 1/4 mile	Extra cost to run permanent power an extra 1/4 mile	Internal	\$100,000.00	2	25		\$25,000.00	2	Accept
Expand OMTA area	Unexpected discovery of cultural resources requires sampling and documentation	Schedule delay of 2 months	Internal	\$100,000.00	2	10		\$10,000.00		2 Accept
Expand OMTA area	Unforseen subsurface conditions requires soil removal and replacement	Schedule delay of 2 weeks plus replacement of soil in excavated area	Internal	\$25,000.00		30		\$7,500.00		Accept
Construct water well	Adequate supply of water not available at proposed location		Internal	\$100,000.00	2			\$30,000.00	2	Accept
Remove Unforseen subsurface underground/above ground conditions requires soil interim leachate line removal and replacemen	Unforseen subsurface I conditions requires soll removal and replacement	Schedule delay of 2 weeks plus replacement of soil in excavated area	Internal	\$25,000.00		300		\$7,500.00		Accept
Construction of Miscellaneous Facilities - General	Minor construction One-mont schedule extension various issues, e.g., inclement weather, equipment deliverles, rework	One-month schedule extension	Internal ·	\$100,000.00	2	330		\$30,000.00		2 Accept
			Total:	\$585,000.00			Total:	\$129,500.00		

Risk/Opportunity Identification and Analysis Form

Project: Enhanced Permanent LTS	nent LTS	PBS Number: 03			Total Baseline Do	Total Baseline Dollars (Minimum Case)	.(83)	\$1 471 405		
Evaluator: Hughes, Wolinsky	sky	WBS Number: 1.1.C.C			200000000000000000000000000000000000000	200	201.	064/1/4/16		
CAM: J.D. Chiou	Date: 05/01/01	Control Account Number:	er: CLTS							
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost \$ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost \$ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Charge No. CLTS1, Enhanced Permanent LTS Design FY01	Design Complete - NO PISK									
Charge No., CLTS2, Enhanced Permanent LTS Construction FY01	15/171 (00/00/00/00/A									
Operation of EPLTS	Previously installed ILTS Increased cost due to line between the control labor, rental equipment valve house and the and material required permanent lift station for repair and needs to be replaced due temporary pumping of to leakage leachate.	Increased cost due to labor, rental equipment, and material required for repair and temporary pumping of leachate.	Internal	\$125,000.00	0	90		\$62,500.00		2 Accept

WBS DICTIONARY CONTROL ACCOUNT/CHARGE NUMBER

		•	

U.S. DEPARTMENT OF ENERGY WORK BREAKDOWN STRUCTURE DICTIONARY PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT		
FEMP (DEFENSE)	- 12/01/2000		
FEMP (DEFENSE)	12/01/2000		
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.	
2004 010000115	·	21	
AC24-010H20115		31	
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE		
1.1.C.D	CONSTRUCTION		
7. APPROVED CP NO.		8. DATE OF CHANGES	
NEW PER CP# FY01-0115-0003-00		09/05/2001	
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER		
CERCL/ACA	EW05H3030		
11. ELEMENT TASK DESCRIPTION			
11. CELINETT FACTOCOUNT FION			

a. ELEMENTS OF COST:

Labor Material Subcontractors OCDs

b. TECHNICAL CONTENT:

Subcontractor services, support services, matrixed labor, material and equipment utilized by the FEMP for Borrow Area development, construction of cell liners 4 through 7, placement of impacted material in cells 2 through 7, construction of final covers 1 through 7, temporary cover for cells 2 and 3 and infrastructure projects built prior to October 1, 2001.

c. SCOPE OF WORK:

The scope of this WBS Element is further defined in control account CCPL and includes the following:

- Matrixed labor from Fluor Fernald, Inc. support organizations
- Excavation of material from the borrow area to support liner and final cover construction
- Construction of liners for cells 4 through 7
- Hauling of impacted material from the OMTA and placement of impacted material in cells 2 through 7
- Construction of final covers for cells 1 through 7
- Electric leak detection of the liner and final cover geomembrane liners
- Installation of cap monitoring instruments
- Construction of stormwater management and erosion and sediment controls
- Interim restoration of the Borrow Area
- Installation of a temporary cover on the impacted material in Cells 2 and 3
- Furnish geosynthetic material for liner and final cover construction

U.S. DEPARTMENT OF ENERGY WORK BREAKDOWN STRUCTURE DICTIONARY PART II - ELEMENT DEFINITION

PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
AC24-010H20115		31
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.C.D	CONSTRUCTION	
7. APPROVED CP NO.		8. DATE OF CHANGES
NEW PER CP# FY01-0115-0003-00)	09/05/2001
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCL/ACA	EW05H3030	

11. ELEMENT TASK DESCRIPTION

- Furnish aggregate and stone material for the liner and final cover construction
- Dust Control
- Horizontal monitoring wells for cells 4 through 7
- Removal of Phase I of the North Access Rd within the OSDF footprint
- Removal and placement in the OSDF of all service roads, stockpiles and previously installed infrastructure which is not required after completion of the OSDF construction

WORK SPECIFICALLY EXCLUDED

- Excavation and hauling of impacted material from excavation, size reduction of debris and excavated material such as at- or below-grade structures, utilities, concrete
- Any alterations to the tie between the Bio-Surge Lagoon and AWWT are the responsibility of Aquifer.
- Air monitoring of the OSDF during the project shutdown is budgeted and done by Environmental Monitoring.
- Monitoring of leachate is the responsibility of Aquifer.
- Roll-off boxes and sealands are provided by Waste Generator Services.
- OSDF is not responsible for Stewardship activities during project shut down
- The existing leachate lines between manholes 1 and 2 and manholes 2 and 3 will not be excavated and removed after the manholes are demolished
- Treatment of stormwater
- Final restoration activities n OSDF and Borrow Area
- Control and management of OSDF, the Borrow Area, and OMTA is budgeted in control account CDG1, infrastructure construction is budgeted in CBSP
- Staff labor is charged to control account CECP
- Monitoring wells
- Centralized services provided by other PBSs
- Removal of all Phase I of the North Access Rd outside of the OSDF footprint
- Dust control on paved road
- Impacted material haul road removal

WORK SCOPE DEFINITION (Control Account)						
1. PROJECT TITLE		2. DATE				
FEMP (DEFENSE)	·	09/05/2001	Page 1			
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME				
1.1.C.D	1.1.C.D CONSTRUCTION					
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER			
49	JD CHIOU /648	3-3726	JD CHIOU			
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE					
EW05H3030	ON-SITE DISPO	SAL FACILITY				
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?		11. ESTIMATED START / COMPLETION DATE			
NEW PER CP# FY01-0115-0003-00			12/00 - 12/09			
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ON	NE LINE)				
CCPL	OSDF CONSTRUC	CTION				

a. ELEMENTS OF COST:

Labor Material Subcontractors

b. TECHNICAL CONTENT:

Subcontractor services support services, matrixed labor, material and equipment utilized by the FEMP for Borrow Area development, construction of cell liners 4 through 7, placement of impacted material in cells 2 through 7, construction of final covers 1 through 7, temporary cover for cells 2 and 3 and infrastructure projects completed after December 2000 but before October 1, 2001.

c. SCOPE OF WORK:

The scope of this control account is further defined in charge number CCPL1-4 and CCPLA-K and includes the following:

Matrixed labor from Fluor Fernald Inc. support contractors

Excavation of material from the borrow area to support liner and final cover construction

Construction of liners for cells 4 through 7

Hauling of impacted material from the OMTA and placement of impacted material in cells 2 through 7

Construction of final covers for cells 1 through 7

Project Manager

Control Account Manager

Control Team Manager

Control Team Manager

WORK SCOPE DEFINITION (Control Account)						
PROJECT TITLE		2. DATE				
FEMP (DEFENSE)		09/05/2001	Page 2			
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME				
1.1.C.D						
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER			
49	JD CHIOU /648	3-3726	JD CHIOU			
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE					
EW05H3030	SAL FACILITY	·				
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?	11. ESTIMATED START / COMPLETION DATE				
NEW PER CP# FY01-0115-0003-00		12/00 - 12/09				
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ON	IE LINE)				
CCPL	OSDF CONSTRUC	CTION				

Electric leak detection of the liner and final cover geomembrane liners

Installation of cap monitoring instruments

Construction of stormwater management and erosion and sediment controls

Interim restoration of the Borrow Area

Installation of a temporary cover on the impacted material in Cells 2 and 3

Furnish geosynthetic material for liner and final cover construction

Furnish aggregate and stone material for the liner and final cover construction

Dust Control

Horizontal monitoring wells for cells 4 through 7

Removal of Phase I of the North Access Road within the OSDF footprint

Removal and placement in the OSDF of all service roads, stockpiles and previously installed infrastructure which is not required after completion of the OSDF construction

d. WORK SPECIFICALLY EXCLUDED:

Excavation and hauling of impacted material from excavation, size reduction of debris and excavated material such as at- or below-grade structures, utilies, concrete

Any alterations to the tie between the Bio-Surge Lagoon and AWWT are the responsibility of the Aquifer Restoration Project

Air monitoring of teh OSDF during the project shutdown is budgeted and done by

WORK SCOPE DEFINITION (Control Account)						
1. PROJECT TITLE		2. DATE				
FEMP (DEFENSE)		09/05/2001	Page 3			
WBS ELEMENT CODE 4. WBS ELEMENT TITLE/NAME			-			
1.1.C.D						
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER			
49	JD CHIOU /648	3-3726	JD CHIOU			
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE					
EW05H3030	ON-SITE DISPO	SAL FACILITY				
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW	SCOPE?		11. ESTIMATED START / COMPLETION DATE			
NEW PER CP# FY01-0115-0003-00	1	12/00 - 12/09				
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ON	NE LINE)				
CCPL	OSDF CONSTRUC	CTION				

Environmental Monitoring

Monitoring of leachate is the responsibility of the Aquifer Restoration Project

Roll-off boxes and sealands are provided by Waste Generator Services

OSDF is not responsible for Stewardship activities during project shutdown

The existing leachate lines between manholes 1 and 2 and manholes 2 and 3 will not be excavated and removed after the manholes are demolished

Treatment of stormwater

Final restoration activities in OSDF and the Borrow Area

Control and management of OSDF, Borrow Area and OMTA is budgeted in CBSP

Staff labor is charged to control account CECP

Monitoring wells

Centralized services is provided by other PBSs

Removal of all Phase I of the North Access Road outside of the OSDF footprint

Dust control on paved road

Impacted material haul road removal

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WORK SCOPE DEFINITION (Work Package)						
1. PROJECT TITLE		2. DATE				
FEMP (DEFENSE)	·	09/05/2001	Page 1			
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME				
1.1.C.D						
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER			
49	JD CHIOU/648-	3726	JD CHIOU			
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE					
EW05H3030	ON-SITE DISPO	SAL FACILITY				
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW	SCOPE?		11. ESTIMATED START / COMPLETION DATE			
NEW PER CP# FY01-0015-0003-00		10/01 - 12/09				
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	IE LINE)				
CCPL1	OSDF CONSTRUCTION, MATRIXED LABOR					

a. ELEMENTS OF COST:

Labor Material Subcontract

b. TECHNICAL CONTENT:

Charge Number CCPL1 covers Fluor Fernald matrixed labor from acquisitions, environmental safety and health (IH), Rad Operations, quality control, lab services, construction support service supervision, engineering services, environmental compliance, environmental monitoring/sampling, information management, infrastructure services, waste generator services, public affairs, operation assurance, and project controls/cost scheduling.

Drivers:

- Availability of matrixed labor after seasonal shutdowns
- Construction contracts will be written to put more burden on the Contractor to fulfill some of the current matrixed labor responsibilities and assignments such as: radiological compliance activities, quality assurance, and safety.

c. SCOPE OF WORK:

These matrixed personnel are utilized to support the construction operations of the OSDF from FY02 through FY09. The construction schedule is based on five (5) ten-hour days, Monday through Friday, throughout the construction season and minimal matrixed labor support throughout the seasonal shutdown. The schedule is also based on five (5) ten-hour days on a double shift basis during excavation

Project Ma	anager Wh-	al.	Cor	ntrol Acco	unt Manag		Control Team Manager
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WORK SCOPE DEFINITION (Work Package)						
1. PROJECT TITLE	·	2. DATE				
FEMP (DEFENSE)		09/05/2001	Page 2			
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME				
1.1.C.D	CONSTRUCTION					
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER			
49	JD CHIOU/648-	3726	JD CHIOU			
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE					
EW05H3030	SAL FACILITY					
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?			11. ESTIMATED START / COMPLETION DATE			
NEW PER CP# FY01-0015-0003-00			10/01 - 12/09			
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	IE LINE)				
CCPL1	OSDF CONSTRUCTION, MATRIXED LABOR					

and placement in 2006 and 2007. A majority of the matrixed labor support includes safety, radiological control, and quality assurance/control as follows:

- · Safety personnel will coordinate with construction management personnel and the cell contractor's safety personnel on safety compliance and programs.
- · Radiological technicians will perform air monitoring, radiological permitting, access control, and OSDF operations coverage.
- Quality assurance/control will oversee the CQC contractor and monitor impacted material placement, liner construction, cap construction, and borrow area management.

d. WORK SPECIFICALLY EXCLUDED:

Building trades labor

Fluor Fernald construction management

Fluor Fernald staff labor is covered under work package CECP3

Screening of clay materials is covered under work package CCPL2

All centralized services

Matrixed labor for OSDF Infrastructure Construction, Contols and Management, and work package CCPL4 (during FY01)

Treatment of surface water, leachate.

Additional costs and schedule delays that result from DOE required accountability, criticality or other drills.

Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site.

Dust Control on paved roads.

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9. BUDGET TITLE						
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OSDF CONSTRUC	CTION, MATRIXED	LABOR				
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Construction Quality Control services.

Cost increases or schedule delays caused by other than normal weather.

Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources.

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CCPL2	OSDF BORROW A	AREA DEVELOPMENT		

a. ELEMENTS OF COST:

Subcontract

b. TECHNICAL CONTENT:

Development of the OSDF Borrow Area. Development of the Borrow Area includes; submittals, procurement of equipment and materials, site preparation, excavating, screening, stockpiling, restoration, and project close-out.

c. SCOPE OF WORK:

Excavate and screen soil in the OSDF Borrow Area to provide material for use as: clay liner or clay material, contouring layer material, vegetative layer material, topsoil, compacted fill or rocky fill. Activities included in this scope of work are:

Prepare work plans, technical submittals and submittal register.

Procure material, equipment, labor specialty contractor services.

Site preparation; mobilization, verification of existing conditions (surveys), clearing and grubbing, stripping and stockpiling topsoil, build access roads, set-up field trailer relocated stockpiles (as required) set-up screener, install fences and signs and install surface water management and erosion controls.

Excavate material and push to screener for processing.

Screen (process) material and haul to stockpile area.

Project Manager	Control Account Manager	Control Tearn Manager

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CCPL2	OSDF BORROW A	AREA DEVELOPMENT		

Load and haul reject material to stockpile area. Identify end use of material.

Maintain dust controls.

Interim restoration of all disturbed areas

Perform final surveys

Close-out

d. WORK SPECIFICALLY EXCLUDED:

- Fluor Fernald staff labor (CECP3)
- Fluor Fernald matrixed labor (CCPL1)
- · All centralized service
- · Borrow Area development performed prior to FY02
- · Treatment of surface water, leachate.
- · Additional costs and schedule delays that result from DOE required accountability, criticality or other drills.
- Final restoration of the OSDF Borrow Area and areas outside of the limits of the OSDF Final Cover.
- · Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site.
- · Dust Control on paved roads.
- · Construction Quality Control services.
- Cost increases or schedule delays caused by other than normal weather.
- · Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources.

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CCPL3	OSDF PLACEME	NT		

a. ELEMENTS OF COST:

Subcontracts

b. TECHNICAL CONTENT:

Charge Number CCPL3 covers Subcontractor labor, equipment and material for Impacted Material Placement in Cells #2 through #7. Placement consists of the Select, Protective and Categories 1 through 5 of Impacted Material from various D&D projects and soil excavations. Charge Number CCPL3 also covers the control and management of active Impacted Material Catchment Areas located within the cells along with grading and compaction requirements, receiving of Impacted Material in the OMTA and removal of a portion of the Impacted Material Haul Road west of the OSDF.

Drivers:

Availability of sufficient building trade labor

EPA approval of 4-foot intervening layer to 2-foot intervening layer

c. SCOPE OF WORK:

Prepare work plans, technical submittals and the submittal register.

Mobilize equipment, perform safety checks, training, installation of surface water management and erosion controls, construction and rad fence.

Project Manager

Control Account Manager

Control Team Manager

Control Team Manager

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CCPL3	OSDF PLACEMEN	NT.		

Verification of existing conditions (including field surveys)

Installation of construction signs and grid signs.

Receive Impacted Material at the OMTA.

Removal of Impacted Portion of OSDF Haul Road west of OSDF

Placement of 12-inch Protective Layer (Cell Liner)

Placement of 24-inches of Select Impacted Material (Cell Liner)

Place Impacted Material in Cells #2 through #7

Placement of 36-inches of Select Impacted Material (Cell Cap)

Completion of Project Punchlist

Demobilize

d. WORK SPECIFICALLY EXCLUDED:

Additional costs and schedule delays that result from DOE required accountability, criticality, or other drills.

Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site.

Excavation and hauling of Impacted Material from excavations, size reduction of debris and excavated material such as at-or below-grade structures, utilities, and concrete.

Dust Control on paved roads.

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CCPL3	OSDF PLACEMEN	vT		

Size reduction of Impacted Material or Debris from D&D projects.

Re-loading of prohibited items that were loaded and dumped in the cell.

Cost increases or schedule delays caused by other than normal weather.

Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources.

Treatment of surface water, leachate.

Fluor Fernald matrixed labor is covered under work package CCPL1.

Fluor Fernald staff labour is covered under work package CECP3.

All centralized services.

OSDF placement covered under CCPL4.

Impacted Material Haul Road Removal.

Construction costs for a laydown area at the Waste Pits railyard.

Construction Quality Control services.

Annual video inspection of solid wall HDPE pipes for leachate detection system, leachate collection system, and redundant leachate collection system will be performed by ARWWP.

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CCPL4	OSDF PH II CONSTRUCTION, MATERIAL, SERVICES			

a. ELEMENTS OF COST:

Labor Material Subcontracts

b. TECHNICAL CONTENT:

Charge Number CCPL4 covers subcontractor costs and Fluor Fernald labor, equipment, andmaterial for activities associated with Cell 1 final cover construction, including installation of the temporary cover on the impacted material in Cell #2 and Cell #3. The temporary cover will be ConCover 180, which must be placed twice a year. This charge number also includes construction of the OMTA expansion/transite transfer areas west of "B" Street, FY01 impacted material placement, and control and management of the OMTA bulk debris. Charge Number CCPL4 also includes completion of miscellaneous OSDF activities started prior to but finished after December 1, 2000.

Drivers: - Last application of ConCover will be in the spring of 2003

- EPA approval of ConCover application

c. SCOPE OF WORK:

Submittals and procurement associated with ConCover application

Application of ConCover 180 in Cell #2 and Cell #3 through FY03

FY01 Impacted Material Placement

Construction of OMTA Expansion area from "B" Street west along the north process

Project Manager	Control Account Manager	Control Team Manager M. Kult

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CCPL4	OSDF PH II CONSTRUCTION, MATERIAL, SERVICES				

fence

Construction of the Transite Transfer Area

Operation and management of the OMTA Bulk Debris material receiving area from FY01 through FY03

Minor Control and Management activities in the OSDF during winter shutdown periods

The following activities were completed during FY01 subsequent to December 1, 2000:

Complete construction of OMTA from "B" Street to the east construction fence Complete construction of Service Road Northwest of Cell #1 Complete construction of laydown yard west of Cell #1 Purchase of general services and materials Complete purchase of stone/geosynthetics material for Cell #1 Final Cover Construction

Includes work scope cross walked from charge number CCC22 performed during FY01 for OSDF Phase II Construction, Materials, Service

d. WORK SPECIFICALLY EXCLUDED:

Treatment of surface water, leachate

Additional costs and schedule delays that result from DOE required accountability, criticality, or other drills

Leachate contingency plans

Excavation and hauling of impacted material from excavation, size reduction of debris and excavated material such as at or below-grade structures, utilities, and concrete

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CCPL4	OSDF PH II CONSTRUCTION, MATERIAL, SERVICES				

Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site

Impacted Material Haul Road removal

Construction quality control services

Cost increases or schedule delays caused by other than normal weather

Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources

Construction of Valve House #7

Annual video inspection of solid wall HDPE pipes for leachate detection system, leachate collection system, and redundant leachate collection system will be performed by ARWWP.

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CCPLA	OSDF CELL #2	CAP		

a. ELEMENTS OF COST:

Subcontract

b. TECHNICAL CONTENT:

Subcontractor labor, equipment and material costs required to construct the OSDF Cell #2 cap. The work scope includes submittals and procurement; site preparation; construction of contouring layer, clay cap, geosynthetic cap, drainage layer, biointrusion barrier with choking layer, filter layer, vegetative layer and topsoil; vegetation; and project closeout.

c. SCOPE OF WORK:

Provide for the construction of the OSDF Cell #2 cap in accordance with certified construction drawings, specifications and other contract requirements.

Related activities and services included in the scope of work are:

Contractor submittals to include preparation of work plans, technical submittals and the submittal register prepared by the cell contractor, including surface water management and erosion control plan, earthwork work plan, fugitive dust control plan, safe work plan, traffic control plan, project specific health and safety plan, QA plan and construction schedule.

Procurement of direct materials by Fluor Fernald, Inc, to include GCL and GML geosynthetic liner material, geotextile and welding rod.

Site preparation to include mobilization by the cell contractor; training; installation of surface water management and erosion controls; construction

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	Project Manager	Control Account Manager	Control Team Manager
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CCPLA	OSDF CELL #2 CAP			

fence; field surveys, clearing and grubbing; excavation; culvert installation; construction of access/service road on the west side of the OSDF; reworking of the drainage ditch on the west side of Cell #2; excavation of the sacrificial clay wedges; removal of the OSDF haul road on the west side of Cell #2 and stockpiling of the non-impacted removed material; and dust control.

Construction of the contouring layer to include removal of existing silt fence from the select impacted material layer; initial survey of the existing select impacted material layer; grading and recompacting of the select layer; construction of access ramp; placing of non-impacted contouring layer; survey and verification of contouring layer elevations; surface water management and erosion controls; and dust control.

Construction of the clay cap to include maintenance of the Borrow Area Haul Road and North Entrance Road; traffic controls at the Borrow Area Haul Road and North Entrance Road intersection; excavation loading and hauling of the clay cap material from the OSDF Area stockpiles to OSDF Cell #2; placement compaction maintenance and surveying of the clay surface; construction survey; and dust control

Construction of the geosynthetic cap to include receiving, unloading, inspecting and storing of geosynthetic cap materials (GCL, GML and geotextile); top of clay liner surface acceptance by Fluor Fernald, GML specialty contractor and CQC consultant; deployment of GCL, GML and geotextile; panel layout, welding, seaming and non-destructive testing of GML; leak detection testing of the GML by the cell contractor; location survey of GML panel and seams; construction surveying; and dust control.

Construction of the drainage layer to include receiving, unloading, stockpiling and inspecting of #78 stone; placing, rolling and surveying of the drainage layer surface; construction surveys; and dust control.

Construction of the Biointrusion barrier to include receiving, unloading, stockpiling and inspecting of biointrusion barrier and choke stone materials; survey and verification of top of drainage layer elevation prior to placement of the biointrusion barrier; placing of biointrusion barrier and choke stone; and dust control.

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Construction of the filter layer including receiving and stockpiling of the filter layer material (sand); survey and verification of top of biointrusion barrier layer elevation prior to placement of the filter layer; loading hauling and placement of the filter layer material; and dust control.

Construction of the vegetative layer including maintenance of the Borrow Area Haul Road, survey and verification of top of filter layer elevation prior to placement of the vegetative layer; loading of the vegetative layer material from OSDF Borrow Area stockpiles and hauling to OSDF Cell #2; placement of the vegetative layer; and dust control.

Construction of the topsoil layer including maintenance of the Borrow Area Haul Road; survey and verification of top of the vegetative layer elevation prior to placement of the topsoil layer; loading of the topsoil layer material from OSDF Borrow Area stockpiles and hauling to OSDF Cell #2; placement of the topsoil layer; and dust control.

Plant permanent vegetation on the Cell #2 final cover including seeding and erosion mat.

Project closeout to include completion of project punchlist; final surveys and redline drawings submittal; and demobilization by the cell contractor.

d. WORK SPECIFICALLY EXCLUDED:

Fluor Fernald matrixed labor required for this work is covered under work package CCPL1

Fluor Fernald staff labor is covered under work package CECP3

Screening of clay materials is covered under work package CCPL2

All centralized services

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Treatment of surface water, leachate.

Additional costs and schedule delays that result from DOE required accountability, criticality or other drills.

Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site.

Dust Control on paved roads.

Construction Quality Control services.

Cost increases or schedule delays caused by other than normal weather.

Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources.

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CCPLB	OSDF CELL #3	CAP	

a. ELEMENTS OF COST:

Subcontract

b. TECHNICAL CONTENT:

Subcontractor labor, equipment and material costs required to construct the OSDF Cell #3 cap. The work scope includes submittals and procurement, site preparation, and construction of contouring layer, clay cap, geosynthetic cap, drainage layer, biointrusion barrier with choking layer, filter layer, vegetative layer topsoil, vegetation and project closeout.

c. SCOPE OF WORK:

Provide for the construction of the OSDF Cell #3 cap in accordance with certified construction drawings, specifications and other contract requirements.

Related activities and services included in the scope of work are:

Contractor submittals to include preparation of work plans, technical submittals and the submittal register prepared by the cell contractor, including surface water management and erosion control plan, earthwork work plan, fugitive dust control plan, safe work plan, traffic control plan, project specific health and safety plan, QA plan and construction schedule.

Procurement of direct materials by Fluor Fernald, Inc, to include GCL and GML geosynthetic liner material, geotextile and welding rod.

Site preparation to include mobilization by the cell contractor; training;

Project Manager Control Account Manager Control Team Manager

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CCPLB	OSDF CELL #3 CAP		

installation of surface water management and erosion controls; construction fence; field surveys, clearing and grubbing; excavation; culvert installation; construction of access/service road on the west side of the OSDF; reworking of the drainage ditch on the west side of Cell #3; excavation of the sacrificial clay wedges; removal of the OSDF haul road on the west side of Cell #3 and stockpiling of the non-impacted removed material; and dust control.

Construction of the contouring layer to include removal of existing silt fence from the select impacted material layer; initial survey of the existing select impacted material layer; grading and recompacting of the select layer; construction of access ramp; placing of non-impacted contouring layer; survey and verification of contouring layer elevations; surface water management and erosion controls; and dust control.

Construction of the clay cap to include maintenance of the Borrow Area Haul Road and North Entrance Road; traffic controls at the Borrow Area Haul Road and North Entrance Road intersection; excavation loading and hauling of the clay cap material from the OSDF Area stockpiles to OSDF Cell #3; placement compaction maintenance and surveying of the clay surface; construction survey; and dust control

Construction of the geosynthetic cap to include receiving, unloading, inspecting and storing of geosynthetic cap materials (GCL, GML and geotextile); top of clay liner surface acceptance by Fluor Fernald, GML specialty contractor and CQC consultant; deployment of GCL, GML and geotextile; panel layout, welding, seaming and non-destructive testing of GML; leak detection testing of the GML by the cell contractor; location survey of GML panel and seams; construction surveying; and dust control.

Construction of the drainage layer to include receiving, unloading, stockpiling and inspecting of #78 stone; placing, rolling and surveying of the drainage layer surface; construction surveys; and dust control.

Construction of the Biointrusion barrier to include receiving, unloading, stockpiling and inspecting of biointrusion barrier and choke stone materials; survey and verification of top of drainage layer elevation prior to placement of the biointrusion barrier; placing of biointrusion barrier and choke stone; and

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8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE			
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dust control.

Construction of the filter layer including receiving and stockpiling of the filter layer material (sand); survey and verification of top of biointrusion barrier layer elevation prior to placement of the filter layer; loading hauling and placement of the filter layer material; and dust control.

Construction of the vegetative layer including maintenance of the Borrow Area Haul Road, survey and verification of top of filter layer elevation prior to placement of the vegetative layer; loading of the vegetative layer material from OSDF Borrow Area stockpiles and hauling to OSDF Cell #3; placement of the vegetative layer; and dust control.

Construction of the topsoil layer including maintenance of the Borrow Area Haul Road; survey and verification of top of the vegetative layer elevation prior to placement of the topsoil layer; loading of the topsoil layer material from OSDF Borrow Area stockpiles and hauling to OSDF Cell #3; placement of the topsoil layer; and dust control.

Plant permanent vegetation on the Cell #3 final cover including seeding and erosion mat.

Project closeout to include completion of project punchlist; final surveys and redline drawings submittal; and demobilization by the cell contractor.

d. WORK SPECIFICALLY EXCLUDED:

Fluor Fernald matrixed labor required for this work is covered under work package CCPL1.

Fluor Fernald staff labor is covered under work package CECP3

Screening of clay materials is coverd under work package CCPL2

All centralized services

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Treatment of surface water, leachate.

Additional costs and schedule delays that result from DOE required accountability, criticality or other drills.

Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site.

Dust Control on paved roads.

Construction Quality Control services.

Cost increases or schedule delays caused by other than normal weather.

Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources.

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CCPLC	OSDF CELL #4	LINER	

a. ELEMENTS OF COST:

Subcontract

b. TECHNICAL CONTENT:

Subcontractor labor, equipment and material costs required to construct the OSDF Cell #4 liner. The work scope includes submittals and procurement; site preparation; construction of clay liner, primary and secondary geosynthetic liners, primary and secondary drainage layers; construction of perimeter clay wedges and access ramps; construction of the catchment area; video inspection of HDPE pipe; installation of horizontal monitoring wells #4 and #5; and project closeout.

c. SCOPE OF WORK:

Provide for the construction of the OSDF Cell #4 liner in accordance with certified construction drawings, specifications and other contract requirements.

Related activities and services included in the scope of work are:

Contractor submittals to include preparation of work plans, technical submittals and the submittal register by the cell contractor, including surface water management and erosion control plan, earthwork work plan, fugitive dust control plan, safe work plan, traffic control plan, project specific health and safety plan, QA plan and construction schedule.

Procurement of material by Fluor Fernald, Inc, to include GCL and GML geosynthetic liner material, geotextile and welding rod.

Project Manager	Control Account Manager	Control Team/Manager	

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CCPLC	OSDF CELL #4 LINER			

Site preparation to include mobilization by the cell contractor; training; installation of surface water management and erosion controls; construction fence; field surveys; clearing and grubbing; access/haul roads; removal of topsoil, excavation, overexcavation; removal of existing utilities including drain tiles; subgrade preparation and surveying of subgrade; maintenance of subgrade until placement of first lift of clay liner; installation of gravity inlet structures and reinforced concrete pipe; and dust control.

Construction of clay liner including maintenance of the Borrow Area Haul Road; traffic controls at the intersection of the Borrow Area Haul Road and North Entrance Road; loading of clay liner material from the OSDF Borrow Area stockpiles and hauling to OSDF Cell #4; placement, compaction, maintenance and survey of the clay material; construction surveys; and dust control.

Construction of primary and secondary geosynthetic liners including receiving, unloading, inspecting, storing geosynthetic liner materials (GCL, GML and geotextile); installation of liner penetration boxes and HPDE pipe; top of clay liner surface acceptance by the cell contractor, Fluor Fernald, Inc., GML specialty contractor and CQC consultant; primary and secondary GCL, GML and geotextile placement and installation, panel layout, welding, seaming and non-destructive testing and repair of GML; leak detection testing of the GML; location survey of GML panel and seams; hydrotesting of penetration boxes and solid wall HDPE pipe between penetration boxes and valve house #4; trenching, placement, primary and secondary liner terminations, backfill and compaction around OSDF Cell #4 perimeter; construction surveys; and dust control.

Construction of primary and secondary drainage layers including receiving, stockpiling, and inspection of #78 and #57 stone; placing drainage layer; installation of perforated HDPE pipe; rolling and surveying of drainage layer surfaces; construction surveys; and dust control.

Construction of perimeter clay wedges and access ramp including loading from Borrow area stockpiles and hauling to the OSDF Cell #4 perimeter; placement, compaction, maintenance and survey of the perimeter clay wedges; placement of sacrificial geomembrane; construction for Cell #4 access ramp; construction surveys; and dust control.

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CCPLC	OSDF CELL #4 LINER		

Placing and surveying of non-impacted granular layer and geotextile in the Cell #4 catchment area.

Video inspection of solid wall HDPE pipes for the leachate detection system, leachate collection system, and redundant leachate collection system by specialty contractor, including initial videotaping of leachate lines between valve houses and inlet boxes in Cell #4.

Installation of horizontal monitoring wells #4 and #5 and tie-in to valve houses; and hydrotesting of the solid wall pipes for the leachate detection system, leachate collection system, and redundant leachate collection system.

Project closeout to include completion of project punchlist; final surveys and redline drawings submittal; and demobilization by the cell contractor.

d. WORK SPECIFICALLY EXCLUDED:

Fluor Fernald matrixed labor required for this work is covered under work package CCPL1.

Fluor Fernald staff labor is covered under work package CECP3

Screening of clay materials is coverd under work package CCPL2

All centralized services

Treatment of surface water, leachate.

Additional costs and schedule delays that result from DOE required accountability, criticality or other drills.

Leachate contingency plans.

Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site.

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CCPLC	OSDF CELL #4 LINER		

Dust Control on paved roads.

Construction Quality Control services.

Cost increases or schedule delays caused by other than normal weather.

Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources.

Annual video inspection of solid wall HDPE pipes for leachate detection system, leachate collection system, and redundant leachate collection system will be performed by ARWWP.

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CCPLD	OSDF CELL #4 CAP		

a. ELEMENTS OF COST:

Subcontract

b. TECHNICAL CONTENT:

Subcontractor labor, equipment and material costs required to construct the OSDF Cell #4 cap. The work scope includes submittals and procurement; site preparation; construction of contouring layer, clay cap, geosynthetic cap, drainage layer, biointrusion barrier with choking layer, filter layer, vegetative layer and topsoil; vegetation; and project closeout.

c. SCOPE OF WORK:

Provide for the construction of the OSDF Cell #4 cap in accordance with certified construction drawings, specifications and other contract requirements.

Related activities and services included in the scope of work are:

Contractor submittals to include preparation of work plans, technical submittals and the submittal register prepared by the cell contractor, including surface water management and erosion control plan, earthwork work plan, fugitive dust control plan, safe work plan, traffic control plan, project specific health and safety plan, QA plan and construction schedule.

Procurement of direct materials by Fluor Fernald, Inc, to include GCL and GML geosynthetic liner material, geotextile and welding rod.

Site preparation to include mobilization by the cell contractor; training; installation of surface water management and erosion controls; construction

Project Manager	Control Account Manager	Control Tearm Manager

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CCPLD	OSDF CELL #4 CAP		

fence; field surveys, clearing and grubbing; excavation; culvert installation; construction of access/service road on the west side of the OSDF; reworking of the drainage ditch on the west side of Cell #4; excavation of the sacrificial clay wedges; removal of the OSDF haul road on the west side of Cell #4 and stockpiling of the non-impacted removed material; and dust control.

Construction of the contouring layer to include removal of existing silt fence from the select impacted material layer; initial survey of the existing select impacted material layer; grading and recompacting of the select layer; construction of access ramp; placing of non-impacted contouring layer; survey and verification of contouring layer elevations; surface water management and erosion controls; and dust control.

Construction of the clay cap to include maintenance of the Borrow Area Haul Road and North Entrance Road; traffic controls at the Borrow Area Haul Road and North Entrance Road intersection; excavation loading and hauling of the clay cap material from the OSDF Area stockpiles to OSDF Cell #4; placement compaction maintenance and surveying of the clay surface; construction survey; and dust control

Construction of the geosynthetic cap to include receiving, unloading, inspecting and storing of geosynthetic cap materials (GCL, GML and geotextile); top of clay liner surface acceptance by Fluor Fernald, GML specialty contractor and CQC consultant; deployment of GCL, GML and geotextile; panel layout, welding, seaming and non-destructive testing of GML; leak detection testing of the GML by the cell contractor; location survey of GML panel and seams; construction surveying; and dust control.

Construction of the drainage layer to include receiving, unloading, stockpiling and inspecting of #78 stone; placing, rolling and surveying of the drainage layer surface; construction surveys; and dust control.

Construction of the Biointrusion barrier to include receiving, unloading, stockpiling and inspecting of biointrusion barrier and choke stone materials; survey and verification of top of drainage layer elevation prior to placement of the biointrusion barrier; placing of biointrusion barrier and choke stone; and dust control.

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CCPLD	OSDF CELL #4	CAP		

Construction of the filter layer including receiving and stockpiling of the filter layer material (sand); survey and verification of top of biointrusion barrier layer elevation prior to placement of the filter layer; loading hauling and placement of the filter layer material; and dust control.

Construction of the vegetative layer including maintenance of the Borrow Area Haul Road, survey and verification of top of filter layer elevation prior to placement of the vegetative layer; loading of the vegetative layer material from OSDF Borrow Area stockpiles and hauling to OSDF Cell #4; placement of the vegetative layer; and dust control.

Construction of the topsoil layer including maintenance of the Borrow Area Haul Road; survey and verification of top of the vegetative layer elevation prior to placement of the topsoil layer; loading of the topsoil layer material from OSDF Borrow Area stockpiles and hauling to OSDF Cell #4; placement of the topsoil layer; and dust control.

Plant permanent vegetation on the Cell #4 final cover including seeding and erosion mat.

Project closeout to include completion of project punchlist; final surveys and redline drawings submittal; and demobilization by the cell contractor.

d. WORK SPECIFICALLY EXCLUDED:

Fluor Fernald staff labor is covered under work package CECP3

Fluor Fernald matrixed labor is covered under work package CCPL1

Screening of clay materials is coverd under work package CCPL2

All centralized services

Treatment of surface water, leachate.

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CCPLD	OSDF CELL #4 CAP			

Additional costs and schedule delays that result from DOE required accountability, criticality or other drills.

Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site.

Dust Control on paved roads.

Construction Quality Control services.

Cost increases or schedule delays caused by other than normal weather.

Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources.

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CCPLE	OSDF CELL #5 LINER			

a. ELEMENTS OF COST:

Subcontract

b. TECHNICAL CONTENT:

Subcontractor labor, equipment and material costs required to construct the OSDF Cell #5 liner. The work scope includes submittals and procurement; site preparation; construction of clay liner, primary and secondary geosynthetic liners, primary and secondary drainage layers; construction of perimeter clay wedges and access ramps; construction of the catchment area; video inspection of HDPE pipe; installation of horizontal monitoring well #6; and project closeout.

c. SCOPE OF WORK:

Provide for the construction of the OSDF Cell #5 liner in accordance with certified construction drawings, specifications and other contract requirements.

Related activities and services included in the scope of work are:

Contractor submittals to include preparation of work plans, technical submittals and the submittal register by the cell contractor, including surface water management and erosion control plan, earthwork work plan, fugitive dust control plan, safe work plan, traffic control plan, project specific health and safety plan, QA plan and construction schedule.

Procurement of material by Fluor Fernald, Inc, to include GCL and GML geosynthetic liner material, geotextile and welding rod.

Site preparation to include mobilization by the cell contractor; training;

Project Manager Control Account Manager Control Team Manager

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CCPLE	OSDF CELL #5 LINER		

installation of surface water management and erosion controls; construction fence; field surveys; clearing and grubbing; access/haul roads; removal of topsoil, excavation, overexcavation; removal of existing utilities including drain tiles; subgrade preparation and surveying of subgrade; maintenance of subgrade until placement of first lift of clay liner; installation of gravity inlet structures and reinforced concrete pipe; and dust control.

Construction of clay liner including maintenance of the Borrow Area Haul Road; traffic controls at the intersection of the Borrow Area Haul Road and North Entrance Road; loading of clay liner material from the OSDF Borrow Area stockpiles and hauling to OSDF Cell #5; placement, compaction, maintenance and survey of the clay material; construction surveys; and dust control.

Construction of primary and secondary geosynthetic liners including receiving, unloading, inspecting, storing geosynthetic liner materials (GCL, GML and geotextile); installation of liner penetration boxes and HPDE pipe; top of clay liner surface acceptance by the cell contractor, Fluor Fernald, Inc., GML specialty contractor and CQC consultant; primary and secondary GCL, GML and geotextile placement and installation, panel layout, welding, seaming and non-destructive testing and repair of GML; leak detection testing of the GML; location survey of GML panel and seams; hydrotesting of penetration boxes and solid wall HDPE pipe between penetration boxes and valve house #5; trenching, placement, primary and secondary liner terminations, backfill and compaction around OSDF Cell #5 perimeter; construction surveys; and dust control.

Construction of primary and secondary drainage layers including receiving, stockpiling, and inspection of #78 and #57 stone; placing drainage layer; installation of perforated HDPE pipe; rolling and surveying of drainage layer surfaces; construction surveys; and dust control.

Construction of perimeter clay wedges and access ramp including loading from Borrow area stockpiles and hauling to the OSDF Cell #5 perimeter; placement, compaction, maintenance and survey of the perimeter clay wedges; placement of sacrificial geomembrane; construction for Cell #5 access ramp; construction surveys; and dust control.

Placing and surveying of non-impacted granular layer and geotextile in the Cell

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CCPLE	OSDF CELL #5 LINER		

#5 catchment area.

Video inspection of solid wall HDPE pipes for the leachate detection system, leachate collection system, and redundant leachate collection system by specialty contractor, including initial videotaping of leachate lines between valve houses and inlet boxes in Cell #5.

Installation of horizontal monitoring well #6 and tie-in to valve house; and hydrotesting of the solid wall pipes for the leachate detection system, leachate collection system, and redundant leachate collection system.

Project closeout to include completion of project punchlist; final surveys and redline drawings submittal; and demobilization by the cell contractor.

d. WORK SPECIFICALLY EXCLUDED:

Fluor Fernald staff labor is covered under work package CECP3

Fluor Fernald matrixed labor is covered under work package CCPL1

Screening of clay materials is coverd under work package CCPL2

All centralized services

Treatment of surface water, leachate.

Additional costs and schedule delays that result from DOE required accountability, criticality or other drills.

Leachate contingency plans.

Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site.

Dust Control on paved roads.

WORK SCOPE DEFINITION (Work Package)			
1. PROJECT TITLE		2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME	
1.1.C.D	CONSTRUCTION		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER
49	JD CHIOU/648-3726		JD CHIOU
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPOSAL FACILITY		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE	
NEW CP# FY01-0015-0003-00		8/04 - 12/05	
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)		
CCPLE	OSDF CELL #5 LINER		

Construction Quality Control services.

Cost increases or schedule delays caused by other than normal weather.

Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources.

Annual video inspection of solid wall HDPE pipes for leachate detection system, leachate collection system, and redundant leachate collection system will be performed by ARWWP.

WORK SCOPE DEFINITION (Work Package)				
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME		
1.1.C.D	CONSTRUCTION	CONSTRUCTION		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE		7. WBS ELEMENT MANAGER	
49	JD CHIOU/648-3726		JD CHIOU	
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE			
EW05H3030	ON-SITE DISPOSAL FACILITY			
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE		
NEW PER CP# FY01-0015-0003-00		3/08 - 12/08		
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)			
CCPLF	OSDF CELL #5 CAP			

a. ELEMENTS OF COST:

Subcontract

b. TECHNICAL CONTENT:

Subcontractor labor, equipment and material costs required to construct the OSDF Cell #5 cap. The work scope includes submittals and procurement; site preparation; construction of contouring layer, clay cap, geosynthetic cap, drainage layer, biointrusion barrier with choking layer, filter layer, vegetative layer and topsoil; vegetation; and project closeout.

c. SCOPE OF WORK:

Provide for the construction of the OSDF Cell #5 cap in accordance with certified construction drawings, specifications and other contract requirements.

Related activities and services included in the scope of work are:

Contractor submittals to include preparation of work plans, technical submittals and the submittal register prepared by the cell contractor, including surface water management and erosion control plan, earthwork work plan, fugitive dust control plan, safe work plan, traffic control plan, project specific health and safety plan, QA plan and construction schedule.

Procurement of direct materials by Fluor Fernald, Inc, to include GCL and GML geosynthetic liner material, geotextile and welding rod.

Site preparation to include mobilization by the cell contractor; training; installation of surface water management and erosion controls; construction

Project Manager	Control Account Manager	Control Team Manager
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WORK SCOPE DEFINITION (Work Package)			
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAI	ΜE	
1.1.C.D	CONSTRUCTION		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER
49	JD CHIOU/648-3726		JD CHIOU
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPOSAL FACILITY		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE	
NEW PER CP# FY01-0015-0003-00		3/08 - 12/08	
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)		
CCPLF	OSDF CELL #5	OSDF CELL #5 CAP	

fence; field surveys, clearing and grubbing; excavation; culvert installation; construction of access/service road on the west side of the OSDF; reworking of the drainage ditch on the west side of Cell #5; excavation of the sacrificial clay wedges; removal of the OSDF haul road on the west side of Cell #5 and stockpiling of the non-impacted removed material; and dust control.

Construction of the contouring layer to include removal of existing silt fence from the select impacted material layer; initial survey of the existing select impacted material layer; grading and recompacting of the select layer; construction of access ramp; placing of non-impacted contouring layer; survey and verification of contouring layer elevations; surface water management and erosion controls; and dust control.

Construction of the clay cap to include maintenance of the Borrow Area Haul Road and North Entrance Road; traffic controls at the Borrow Area Haul Road and North Entrance Road intersection; excavation loading and hauling of the clay cap material from the OSDF Area stockpiles to OSDF Cell #5; placement compaction maintenance and surveying of the clay surface; construction survey; and dust control

Construction of the geosynthetic cap to include receiving, unloading, inspecting and storing of geosynthetic cap materials (GCL, GML and geotextile); top of clay liner surface acceptance by Fluor Fernald, GML specialty contractor and CQC consultant; deployment of GCL, GML and geotextile; panel layout, welding, seaming and non-destructive testing of GML; leak detection testing of the GML by the cell contractor; location survey of GML panel and seams; construction surveying; and dust control.

Construction of the drainage layer to include receiving, unloading, stockpiling and inspecting of #78 stone; placing, rolling and surveying of the drainage layer surface; construction surveys; and dust control.

Construction of the Biointrusion barrier to include receiving, unloading, stockpiling and inspecting of biointrusion barrier and choke stone materials; survey and verification of top of drainage layer elevation prior to placement of the biointrusion barrier; placing of biointrusion barrier and choke stone; and dust control.

WORK SCOPE DEFINITION (Work Package)			
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME	
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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER
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8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPOSAL FACILITY		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE	
NEW PER CP# FY01-0015-0003-00		3/08 - 12/08	
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	E LINE)	
CCPLF	OSDF CELL #5 CAP		

Construction of the filter layer including receiving and stockpiling of the filter layer material (sand); survey and verification of top of biointrusion barrier layer elevation prior to placement of the filter layer; loading hauling and placement of the filter layer material; and dust control.

Construction of the vegetative layer including maintenance of the Borrow Area Haul Road, survey and verification of top of filter layer elevation prior to placement of the vegetative layer; loading of the vegetative layer material from OSDF Borrow Area stockpiles and hauling to OSDF Cell #5; placement of the vegetative layer; and dust control.

Construction of the topsoil layer including maintenance of the Borrow Area Haul Road; survey and verification of top of the vegetative layer elevation prior to placement of the topsoil layer; loading of the topsoil layer material from OSDF Borrow Area stockpiles and hauling to OSDF Cell #5; placement of the topsoil layer; and dust control.

Plant permanent vegetation on the Cell #5 final cover including seeding and erosion mat.

Project closeout to include completion of project punchlist; final surveys and redline drawings submittal; and demobilization by the cell contractor.

d. WORK SPECIFICALLY EXCLUDED:

Fluor Fernald staff labor is covered under work package CECP3

Fluor Fernald matrixed labor is covered under work package CCPL1

Screening of clay materials is coverd under work package CCPL2

All centralized services

Treatment of surface water, leachate.

WORK SCOPE DEFINITION (Work Package)			
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAI	ME	
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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHOI	NE	7. WBS ELEMENT MANAGER
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8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPOSAL FACILITY		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE	
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12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)		
CCPLF	OSDF CELL #5 CAP		

Additional costs and schedule delays that result from DOE required accountability, criticality or other drills.

Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site.

Dust Control on paved roads.

Construction Quality Control services.

Cost increases or schedule delays caused by other than normal weather.

Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources.

WORK SCOPE DEFINITION (Work Package)				
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1.1.C.D	CONSTRUCTION			
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE		7. WBS ELEMENT MANAGER	
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8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE			
EW05H3030	ON-SITE DISPOSAL FACILITY			
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?			11. ESTIMATED START / COMPLETION DATE	
NEW PER CP# FY01-0015-0003-00		8/05 - 12/06		
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)			
CCPLG	OSDF CELL #6 LINER			

a. ELEMENTS OF COST:

Subcontract

b. TECHNICAL CONTENT:

Subcontractor labor, equipment and material costs required to construct the OSDF Cell #6 liner. The work scope includes submittals and procurement; site preparation; construction of clay liner, primary and secondary geosynthetic liners, primary and secondary drainage layers; construction of perimeter clay wedges and access ramps; construction of the catchment area; video inspection of HDPE pipe; installation of horizontal monitoring well #7; and project closeout.

c. SCOPE OF WORK:

Provide for the construction of the OSDF Cell #6 liner in accordance with certified construction drawings, specifications and other contract requirements. Related activities and services included in the scope of work are:

Contractor submittals to include preparation of work plans, technical submittals and the submittal register by the cell contractor, including surface water management and erosion control plan, earthwork work plan, fugitive dust control plan, safe work plan, traffic control plan, project specific health and safety plan, QA plan and construction schedule.

Procurement of material by Fluor Fernald, Inc, to include GCL and GML geosynthetic liner material, geotextile and welding rod.

Site preparation to include mobilization by the cell contractor; training; installation of surface water management and erosion controls; construction

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WORK SCOPE DEFINITION (Work Package)				
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME .		
1.1.C.D	CONSTRUCTION			
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER	
49	JD CHIOU/648-	3726	JD CHIOU	
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE			
EW05H3O3O	ON-SITE DISPO	SAL FACILITY		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? 11. ESTIMATED START / COMPLETION DATE		11. ESTIMATED START / COMPLETION DATE		
NEW PER CP# FY01-0015-0003-00 8/05 - 12/06		8/05 - 12/06		
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	E LINE)		
CCPLG	OSDF CELL #6	LINER		

fence; field surveys; clearing and grubbing; access/haul roads; removal of topsoil, excavation, overexcavation; removal of existing utilities including drain tiles; subgrade preparation and surveying of subgrade; maintenance of subgrade until placement of first lift of clay liner; installation of gravity inlet structures and reinforced concrete pipe; and dust control.

Construction of clay liner including maintenance of the Borrow Area Haul Road; traffic controls at the intersection of the Borrow Area Haul Road and North Entrance Road; loading of clay liner material from the OSDF Borrow Area stockpiles and hauling to OSDF Cell #6; placement, compaction, maintenance and survey of the clay material; construction surveys; and dust control.

Construction of primary and secondary geosynthetic liners including receiving, unloading, inspecting, storing geosynthetic liner materials (GCL, GML and geotextile); installation of liner penetration boxes and HPDE pipe; top of clay liner surface acceptance by the cell contractor, Fluor Fernald, Inc., GML specialty contractor and CQC consultant; primary and secondary GCL, GML and geotextile placement and installation, panel layout, welding, seaming and non-destructive testing and repair of GML; leak detection testing of the GML; location survey of GML panel and seams; hydrotesting of penetration boxes and solid wall HDPE pipe between penetration boxes and valve house #6; trenching, placement, primary and secondary liner terminations, backfill and compaction around OSDF Cell #6 perimeter; construction surveys; and dust control.

Construction of primary and secondary drainage layers including receiving, stockpiling, and inspection of #78 and #57 stone; placing drainage layer; installation of perforated HDPE pipe; rolling and surveying of drainage layer surfaces; construction surveys; and dust control.

Construction of perimeter clay wedges and access ramp including loading from Borrow area stockpiles and hauling to the OSDF Cell #6 perimeter; placement, compaction, maintenance and survey of the perimeter clay wedges; placement of sacrificial geomembrane; construction for Cell #6 access ramp; construction surveys; and dust control.

Placing and surveying of non-impacted granular layer and geotextile in the Cell #6 catchment area.

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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME	
1.1.C.D	CONSTRUCTION		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER
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BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPO	SAL FACILITY	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?			11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0015-0003-00		·	8/05 - 12/06
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	IE LINE)	
CCPLG	OSDF CELL #6	LINER	

Video inspection of solid wall HDPE pipes for the leachate detection system, leachate collection system, and redundant leachate collection system by specialty contractor, including initial videotaping of leachate lines between valve houses and inlet boxes in Cell #6.

Installation of horizontal monitoring well #7 and tie-in to valve house; and hydrotesting of the solid wall pipes for the leachate detection system, leachate collection system, and redundant leachate collection system.

Project closeout to include completion of project punchlist; final surveys and redline drawings submittal; and demobilization by the cell contractor.

d. WORK SPECIFICALLY EXCLUDED:

Fluor Fernald staff labor is covered under work package CECP3

Fluor Fernald matrixed labor is covered under work package CCPL1

Screening of clay materials is coverd under work package CCPL2

All centralized services

Treatment of surface water, leachate.

Additional costs and schedule delays that result from DOE required accountability, criticality or other drills.

Leachate contingency plans.

Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site.

Dust Control on paved roads.

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4. WBS ELEMENT TITLE/NA	ME		
CONSTRUCTION	CONSTRUCTION		
6. ORIGINATOR NAME/PHONE 7. WBS ELEMENT MANAGER		7. WBS ELEMENT MANAGER	
JD CHIOU/648-3726 JD		JD CHIOU	
9. BUDGET TITLE			
ON-SITE DISPOSAL FACILITY			
SCOPE?		11. ESTIMATED START / COMPLETION DATE	
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13. TASK DESCRIPTION (ON	IE LINE)		
OSDF CELL #6	LINER		
	4. WBS ELEMENT TITLE/NA CONSTRUCTION 6. ORIGINATOR NAME/PHO JD CHIOU/648- 9. BUDGET TITLE ON-SITE DISPO	(Work Package) 2. DATE 09/05/2001 4. WBS ELEMENT TITLE/NAME CONSTRUCTION 6. ORIGINATOR NAME/PHONE JD CHIOU/648-3726 9. BUDGET TITLE ON-SITE DISPOSAL FACILITY SCOPE?	

Construction Quality Control services.

Cost increases or schedule delays caused by other than normal weather.

Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources.

Annual video inspection of solid wall HDPE pipes for leachate detection system, leachate collection system, and redundant leachate collection system will be performed by ARWWP.

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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER
49	JD CHIOU/648-3726		JD CHIOU
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPOSAL FACILITY		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?		11. ESTIMATED START / COMPLETION DATE
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12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	E LINE)	
CCPLH	OSDF CELL #6	CAP	

a. ELEMENTS OF COST:

Subcontract Materials

b. TECHNICAL CONTENT:

Subcontractor labor, equipment and material costs required to construct the OSDF Cell #6 cap. The work scope includes submittals and procurement, site preparation, and construction of contouring layer, clay cap, geosynthetic cap, drainage layer, biointrusion barrier with choking layer, filter layer, vegetative layer topsoil, vegetation and project closeout.

c. SCOPE OF WORK:

Provide for the construction of the OSDF Cell #6 cap in accordance with certified construction drawings, specifications and other contract requirements. Related activities and services included in the scope of work are:

Contractor submittals to include preparation of work plans, technical submittals and the submittal register prepared by the cell contractor, including surface water management and erosion control plan, earthwork work plan, fugitive dust control plan, safe work plan, traffic control plan, project specific health and safety plan, QA plan and construction schedule.

Procurement of direct materials by Fluor Fernald, Inc, to include GCL and GML geosynthetic liner material, geotextile and welding rod.

Site preparation to include mobilization by the cell contractor; training; installation of surface water management and erosion controls; construction

Project Manager	Control Account Manager	Control Fearin Manager Tub

WORK SCOPE DEFINITION (Work Package)				
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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER	
49	JD CHIOU/648-	-3726	JD CHIOU	
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE			
EW05H3030	ON-SITE DISPO	SAL FACILITY		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? 11. ESTIMATED START / COMPLETION DATE			11. ESTIMATED START / COMPLETION DATE	
NEW PER CP# FY01-0015-0006-00		3/09 - 12/09		
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	NE LINE)		
CCPLH	OSDF CELL #6	CAP		

fence; field surveys, clearing and grubbing; excavation; culvert installation; construction of access/service road on the west side of the OSDF; reworking of the drainage ditch on the west side of Cell #6; excavation of the sacrificial clay wedges; removal of the OSDF haul road on the west side of Cell #6 and stockpiling of the non-impacted removed material; and dust control.

Construction of the contouring layer to include removal of existing silt fence from the select impacted material layer; initial survey of the existing select impacted material layer; grading and recompacting of the select layer; construction of access ramp; placing of non-impacted contouring layer; survey and verification of contouring layer elevations; surface water management and erosion controls; and dust control.

Construction of the clay cap to include maintenance of the Borrow Area Haul Road and North Entrance Road; traffic controls at the Borrow Area Haul Road and North Entrance Road intersection; excavation loading and hauling of the clay cap material from the OSDF Area stockpiles to OSDF Cell #6; placement compaction maintenance and surveying of the clay surface; construction survey; and dust control

Construction of the geosynthetic cap to include receiving, unloading, inspecting and storing of geosynthetic cap materials (GCL, GML and geotextile); top of clay liner surface acceptance by Fluor Fernald, GML specialty contractor and CQC consultant; deployment of GCL, GML and geotextile; panel layout, welding, seaming and non-destructive testing of GML; leak detection testing of the GML by the cell contractor; location survey of GML panel and seams; construction surveying; and dust control.

Construction of the drainage layer to include receiving, unloading, stockpiling and inspecting of #78 stone; placing, rolling and surveying of the drainage layer surface; construction surveys; and dust control.

Construction of the Biointrusion barrier to include receiving, unloading, stockpiling and inspecting of biointrusion barrier and choke stone materials; survey and verification of top of drainage layer elevation prior to placement of the biointrusion barrier; placing of biointrusion barrier and choke stone; and dust control.

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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NA	ME		
1.1.C.D	CONSTRUCTION			
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER	
49	JD CHIOU/648-	3726	JD CHIOU	
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	· · · · · · · · · · · · · · · · · · ·		
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10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW	SCOPE?		11. ESTIMATED START / COMPLETION DATE	
NEW PER CP# FY01-0015-0006-00)		3/09 - 12/09	
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	IE LINE)	·	
CCPLH	OSDF CELL #6	CAP		

Construction of the filter layer including receiving and stockpiling of the filter layer material (sand); survey and verification of top of biointrusion barrier layer elevation prior to placement of the filter layer; loading hauling and placement of the filter layer material; and dust control.

Construction of the vegetative layer including maintenance of the Borrow Area Haul Road, survey and verification of top of filter layer elevation prior to placement of the vegetative layer; loading of the vegetative layer material from OSDF Borrow Area stockpiles and hauling to OSDF Cell #6; placement of the vegetative layer; and dust control.

Construction of the topsoil layer including maintenance of the Borrow Area Haul Road; survey and verification of top of the vegetative layer elevation prior to placement of the topsoil layer; loading of the topsoil layer material from OSDF Borrow Area stockpiles and hauling to OSDF Cell #6; placement of the topsoil layer; and dust control.

Plant permanent vegetation on the Cell #6 final cover including seeding and erosion mat.

Project closeout to include completion of project punchlist; final surveys and redline drawings submittal; and demobilization by the cell contractor.

d. WORK SPECIFICALLY EXCLUDED:

Fluor Fernald staff labor is covered under work package CECP3

Fluor Fernald matrixed labor is covered under work package CCPL1

Screening of clay materials is coverd under work package CCPL2

All centralized services

Treatment of surface water, leachate.

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8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE			
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10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?		11. ESTIMATED START / COMPLETION DATE	
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12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	E LINE)		
CCPLH	OSDF CELL #6	CAP		

Additional costs and schedule delays that result from DOE required accountability, criticality or other drills.

Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site.

Dust Control on paved roads.

Construction Quality Control services.

Cost increases or schedule delays caused by other than normal weather.

Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources.

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49	JD CHIOU/648-3726		JD CHIOU
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3030	ON-SITE DISPOSAL FACILITY		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?	·	11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0015-0003-00		8/06 - 12/07	
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON	IE LINE)	
CCPLJ	OSDF CELL #7	LINER	

a. ELEMENTS OF COST:

Subcontract

b. TECHNICAL CONTENT:

Subcontractor labor, equipment and material costs required to construct the OSDF Cell #7 liner. The work scope includes submittals and procurement; site preparation; construction of clay liner, primary and secondary geosynthetic liners, primary and secondary drainage layers; construction of perimeter clay wedges and access ramps; construction of the catchment area; video inspection of HDPE pipe; and project closeout.

c. SCOPE OF WORK:

Provide for the construction of the OSDF Cell #7 liner in accordance with certified construction drawings, specifications and other contract requirements.

Related activities and services included in the scope of work are:

Contractor submittals to include preparation of work plans, technical submittals and the submittal register by the cell contractor, including surface water management and erosion control plan, earthwork work plan, fugitive dust control plan, safe work plan, traffic control plan, project specific health and safety plan, QA plan and construction schedule.

Procurement of material by Fluor Fernald, Inc, to include GCL and GML geosynthetic liner material, geotextile and welding rod.

Site preparation to include mobilization by the cell contractor; training;

Project Manager	Control Account Manager	Control Team Manager

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1.1.C.D	CONSTRUCTION	i .			
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PH	ONE	7. WBS ELEMENT MANAGER		
49	JD CHIOU/648	-3726	JD CHIOU		
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE				
EW05H3030	ON-SITE DISP	OSAL FACILITY			
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE?	/ NEW SCOPE?		11. ESTIMATED START / COMPLETI	ION DATE	
NEW PER CP# FY01-0015-000	3-00		8/06 - 12/07		
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (C	ONE LINE)			
CCPLJ	OSDF CELL #7	LINER			

installation of surface water management and erosion controls; construction fence; field surveys; clearing and grubbing; access/haul roads; removal of topsoil, excavation, overexcavation; removal of existing utilities including drain tiles; subgrade preparation and surveying of subgrade; maintenance of subgrade until placement of first lift of clay liner; installation of gravity inlet structures and reinforced concrete pipe; and dust control.

Construction of clay liner including maintenance of the Borrow Area Haul Road; traffic controls at the intersection of the Borrow Area Haul Road and North Entrance Road; loading of clay liner material from the OSDF Borrow Area stockpiles and hauling to OSDF Cell #7; placement, compaction, maintenance and survey of the clay material; construction surveys; and dust control.

Construction of primary and secondary geosynthetic liners including receiving, unloading, inspecting, storing geosynthetic liner materials (GCL, GML and geotextile); installation of liner penetration boxes and HPDE pipe; top of clay liner surface acceptance by the cell contractor, Fluor Fernald, Inc., GML specialty contractor and CQC consultant; primary and secondary GCL, GML and geotextile placement and installation, panel layout, welding, seaming and non-destructive testing and repair of GML; leak detection testing of the GML; location survey of GML panel and seams; hydrotesting of penetration boxes and solid wall HDPE pipe between penetration boxes and valve house #7; trenching, placement, primary and secondary liner terminations, backfill and compaction around OSDF Cell #7 perimeter; construction surveys; and dust control.

Construction of primary and secondary drainage layers including receiving, stockpiling, and inspection of #78 and #57 stone; placing drainage layer; installation of perforated HDPE pipe; rolling and surveying of drainage layer surfaces; construction surveys; and dust control.

Construction of perimeter clay wedges and access ramp including loading from Borrow area stockpiles and hauling to the OSDF Cell #7 perimeter; placement, compaction, maintenance and survey of the perimeter clay wedges; placement of sacrificial geomembrane; construction for Cell #7 access ramp; construction surveys; and dust control.

Placing and surveying of non-impacted granular layer and geotextile in the Cell

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8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	·				
EW05H3030	ON-SITE DISPO	SAL FACILITY				
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?		11. ESTIMATED START / COMPLETION DATE			
NEW PER CP# FY01-0015-0003-00			8/06 - 12/07			
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)					
CCPLJ	OSDF CELL #7 LINER					

#7 catchment area.

Video inspection of solid wall HDPE pipes for the leachate detection system, leachate collection system, and redundant leachate collection system by specialty contractor, including initial videotaping of leachate lines between valve houses and inlet boxes in Cell #7.

Tie-in to valve house; and hydrotesting of the solid wall pipes for the leachate detection system, leachate collection system, and redundant leachate collection system.

Project closeout to include completion of project punchlist; final surveys and redline drawings submittal; and demobilization by the cell contractor.

d. WORK SPECIFICALLY EXCLUDED:

Fluor Fernald staff labor is covered underwork package CECP3

Fluor Fernald matrixed labor is covered under work package CCPL1

Screening of clay materials is coverd under work package CCPL2

All centralized services

Treatment of surface water, leachate.

Additional costs and schedule delays that result from DOE required accountability, criticality or other drills.

Leachate contingency plans.

Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site.

Dust Control on paved roads.

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10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?		11. ESTIMATED START / COMPLETION DATE			
NEW PER CP# FY01-0015-0003-00		8/06 - 12/07				
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CCPLJ	OSDF CELL #7 LINER					

Construction Quality Control services.

Cost increases or schedule delays caused by other than normal weather.

Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources.

Annual video inspection of solid wall HDPE pipes for leachate detection system, leachate collection system, and redundant leachate collection system will be performed by ARWWP.

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1.1.C.D	CONSTRUCTION					
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49	JD CHIOU/648-	3726	JD CHIOU			
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE					
EW05H3030	ON-SITE DISPO	SAL FACILITY				
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?		11. ESTIMATED START / COMPLETION DATE			
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12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)					
CCPLK	OSDF CELL #7 CAP					

a. ELEMENTS OF COST:

Subcontract

b. TECHNICAL CONTENT:

Subcontractor labor, equipment and material costs required to construct the OSDF Cell #7 cap. The work scope includes submittals and procurement; site preparation; construction of contouring layer, clay cap, geosynthetic cap, drainage layer, biointrusion barrier with choking layer, filter layer, vegetative layer and topsoil; vegetation; and project closeout.

c. SCOPE OF WORK:

Provide for the construction of the OSDF Cell #7 cap in accordance with certified construction drawings, specifications and other contract requirements.

Related activities and services included in the scope of work are:

Contractor submittals to include preparation of work plans, technical submittals and the submittal register prepared by the cell contractor, including surface water management and erosion control plan, earthwork work plan, fugitive dust control plan, safe work plan, traffic control plan, project specific health and safety plan, QA plan and construction schedule.

Procurement of direct materials by Fluor Fernald, Inc, to include GCL and GML geosynthetic liner material, geotextile and welding rod.

Site preparation to include mobilization by the cell contractor; training; installation of surface water management and erosion controls; construction

Project Manager	Control Account Manager	Control Team Manager
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49	JD CHIOU/648-3726		JD CHIOU			
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE					
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10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?			11. ESTIMATED START / COMPLETION DATE			
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CCPLK .	OSDF CELL #7 CAP					

fence; field surveys, clearing and grubbing; excavation; culvert installation; construction of access/service road on the west side of the OSDF; reworking of the drainage ditch on the west side of Cell #7; excavation of the sacrificial clay wedges; removal of the OSDF haul road on the west side of Cell #7 and stockpiling of the non-impacted removed material; and dust control.

Construction of the contouring layer to include removal of existing silt fence from the select impacted material layer; initial survey of the existing select impacted material layer; grading and recompacting of the select layer; construction of access ramp; placing of non-impacted contouring layer; survey and verification of contouring layer elevations; surface water management and erosion controls; and dust control.

Construction of the clay cap to include maintenance of the Borrow Area Haul Road and North Entrance Road; traffic controls at the Borrow Area Haul Road and North Entrance Road intersection; excavation loading and hauling of the clay cap material from the OSDF Area stockpiles to OSDF Cell #7; placement compaction maintenance and surveying of the clay surface; construction survey; and dust control

Construction of the geosynthetic cap to include receiving, unloading, inspecting and storing of geosynthetic cap materials (GCL, GML and geotextile); top of clay liner surface acceptance by Fluor Fernald, GML specialty contractor and CQC consultant; deployment of GCL, GML and geotextile; panel layout, welding, seaming and non-destructive testing of GML; leak detection testing of the GML by the cell contractor; location survey of GML panel and seams; construction surveying; and dust control.

Construction of the drainage layer to include receiving, unloading, stockpiling and inspecting of #78 stone; placing, rolling and surveying of the drainage layer surface; construction surveys; and dust control.

Construction of the Biointrusion barrier to include receiving, unloading, stockpiling and inspecting of biointrusion barrier and choke stone materials; survey and verification of top of drainage layer elevation prior to placement of the biointrusion barrier; placing of biointrusion barrier and choke stone; and dust control.

WORK SCOPE DEFINITION (Work Package)						
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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHO	NE	7. WBS ELEMENT MANAGER			
49	JD CHIOU/648-	-3726	JD CHIOU			
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE					
EW05H3030	ON-SITE DISPO	SAL FACILITY				
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW S	SCOPE?		11. ESTIMATED START / COMPLETION DATE			
NEW PER CP# FY01-0015-0003-00			3/09 - 12/09			
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ON					
CCPLK	OSDF CELL #7 CAP					

Construction of the filter layer including receiving and stockpiling of the filter layer material (sand); survey and verification of top of biointrusion barrier layer elevation prior to placement of the filter layer; loading hauling and placement of the filter layer material; and dust control.

Construction of the vegetative layer including maintenance of the Borrow Area Haul Road, survey and verification of top of filter layer elevation prior to placement of the vegetative layer; loading of the vegetative layer material from OSDF Borrow Area stockpiles and hauling to OSDF Cell #7; placement of the vegetative layer; and dust control.

Construction of the topsoil layer including maintenance of the Borrow Area Haul Road; survey and verification of top of the vegetative layer elevation prior to placement of the topsoil layer; loading of the topsoil layer material from OSDF Borrow Area stockpiles and hauling to OSDF Cell #7; placement of the topsoil layer; and dust control.

Plant permanent vegetation on the Cell #7 final cover including seeding and erosion mat.

Project closeout to include completion of project punchlist; final surveys and redline drawings submittal; and demobilization by the cell contractor.

d. WORK SPECIFICALLY EXCLUDED:

Fluor Fernald staff labor is covered underwork package CECP3

Fluor Fernald matrixed labor is covered under work package CCPL1

Screening of clay materials is coverd under work package CCPL2

All centralized services

Treatment of surface water, leachate.

WORK SCOPE DEFINITION (Work Package)							
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10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?			11. ESTIMATED START / COMPLETION DATE				
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CCPLK	OSDF CELL #7 CAP						

Additional costs and schedule delays that result from DOE required accountability, criticality or other drills.

Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site.

Dust Control on paved roads.

Construction Quality Control services.

Cost increases or schedule delays caused by other than normal weather.

Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources.

SECTION 4 1.0 NARRATIVE

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PROJECT TITLE: ON-SITE DISPOSAL FACILITY PROJECT	2. DATE: 09/10/01	3. PBS#: 03
4. WBS ELEMENT CODE:	5. WBS ELEMENT TITLE:	1
1.1.C.D.	OSDF CONSTRUCTION	J
6. CAM NAME/ PHONE:	7. CAM SIGNATURE:	<u> </u>
JYH-DONG CHIOU/ 3726		
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: C	CPL

SECTION 4: CCPL - OSDF CONSTRUCTION

1.0 NARRATIVE

1.1 OVERVIEW

The closure plan for this control account covers OSDF Construction Matrixed Labor, OSDF Borrow Area Development, OSDF impacted material placement in OSDF Cells #2 through #7, OSDF Phase III Construction/ Material/ Services for the OSDF Cell #1 final cover, construction of liners for OSDF Cells #4, #5, #6, and #7, and construction of final covers (caps) OSDF Cells #2 through #7.

The following charge numbers are under this control account:

1.1.1 CCPL1 - OSDF Construction, Matrixed Labor

Charge Number CCPL1 is for support of construction of the OSDF and associated activities. It covers Fluor Fernald matrixed labor from acquisitions, environmental safety and health (IH), Rad Operations, quality control, lab services, construction support service supervision, engineering services, environmental compliance, environmental monitoring/sampling, information management, infrastructure services, waste generator services, public affairs, operation assurance, project controls/ cost scheduling.

1.1.2 CCPL2 - OSDF Borrow Area Development

Charge Number CCPL2 covers subcontractor labor, equipment and material required to provide clay for the clay liners for OSDF Cells #4 through #7, and to provide the material required for the various layers of the OSDF final covers for OSDF Cells #2 through #7. Work covered by this charge number begins with excavation, includes stockpiling in the OSDF Borrow Area, and ends with interim restoration of the excavated areas of the Borrow Area excavation. Screening and stockpiling of clay for OSDF Cell #4 liner will be performed by Fluor Fernald, Inc.

1.1.3 CCPL3 - OSDF Placement

Charge Number CCPL3 covers subcontractor labor, equipment and material required to place impacted material from D&D operations and soils excavation. It covers placement of all impacted material categories in OSDF Cells #2 through #7.

1.1.4 CCPL4 - OSDF Phase III Construction, Materials, Services

Charge Number CCPL4 covers subcontractor costs, and Fluor Fernald labor, equipment and material for activities associated with Cell 1 final cover construction that extend beyond September 30, 2001 and includes installation of the temporary cover on the impacted material in Cell #2 and Cell #3. The temporary cover will be ConCover 180, which must be placed twice a year. This charge number also covers management of the OSDF Cell #1 final cover through December 31, 2001. This charge number also includes OMTA expansion/ transite transfer area west of "B" Street, FY01 impacted material placement and control and management of the OMTA bulk debris after completion of impacted material placement.

1.1.5 CCPLA - OSDF Cell #2 Cap

Charge Number CCPLA covers subcontractor labor, equipment and material costs required to construct the OSDF Cell #2 cap.

1.1.6 CCPLB - OSDF Cell #3 Cap

Charge Number CCPLB covers subcontractor labor, equipment and material costs required to construct the OSDF Cell #3 cap.

1.1.7 CCPLC - OSDF Cell #4 Liner

Charge Number CCPLC covers subcontractor labor, equipment and material costs required to construct the OSDF Cell #4 liner.

1.1.8 CCPLD - OSDF Cell #4 Cap

Charge Number CCPLD covers subcontractor labor, equipment and material costs required to construct the OSDF Cell #4 cap.

1.1.9 CCPLE - OSDF Cell #5 Liner

Charge Number CCPLE covers subcontractor labor, equipment and material costs required to construct the OSDF Cell #5 liner.

1.1.10 CCPLF - OSDF Cell #5 Cap

Charge Number CCPLF covers subcontractor labor, equipment and material costs required to construct the OSDF Cell #5 cap.

1.1.11 CCPLG - OSDF Cell #6 Liner

Charge Number CCPLG covers subcontractor labor, equipment and material costs required to construct the OSDF Cell #6 liner.

1.1.12 CCPLH - OSDF Cell #6 Cap

Charge Number CCPLH covers subcontractor labor, equipment and material costs required to construct the OSDF Cell #6 cap.

1.1.13 CCPLJ - OSDF Cell #7 Liner

Charge Number CCPLJ covers subcontractor labor, equipment and material costs and subcontractor costs required to construct the OSDF Cell #7 liner.

1.1.14 CCPLK - OSDF Cell #7 Cap

Charge Number CCPLK covers subcontractor labor, equipment and material costs required to construct the OSDF Cell #7 cap.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1.2.1.1 General Assumptions

- Scope and schedule based on Scenario 6.
- All work is performed with building trades personnel (Davis Bacon).
- The future construction laydown area will be built south of the OSDF Cell #8, as part of OSDF Infrastructure (CBSP).
- The existing leachate lines between manholes 1 and 2 and manholes 2 and 3 will be abandoned in place.

General area air sample monitoring will not be performed when the OSDF and/or OMTA are shut down, unless maintenance or other activities are performed in the cell.

- There is no SSR or ORR required prior to liner construction, cover construction,
 OSDF Borrow Area development or impacted material placement.
- If required, the Waste Pits Rail Yard area will be available to use as a laydown area for stockpiling of OSDF Construction Materials by IQ – FYO6.
- Double shift work will require lighting and will cause an increase in traffic and an increase in noise from equipment and operations at night. It is assumed that 2nd shift work will be acceptable to neighbors, nearby residents, stakeholders, the EPA and the DOE.
- Main phone line trunk relocation that currently is in the OSDF footprint will be re-located by D&D as part of their utility relocation.
- RIMIA semi-trailer parking area will be relocated or not needed by WGS by the first quarter of FY04.
- Any alterations to the leachate conveyance line tie-in between the Bio-Surge Lagoon and AWWT are the responsibility of Aquifer.

1.2.1.2 Specific Assumptions

CCPL1 - OSDF Construction, Matrixed Labor

- Matrixed labor does not include building trades labor.
- Matrixed labor is baselined with the assumption that the cell contractor will take over some of the matrixed labor responsibilities and assignments such as radiological compliance activities, quality assurance and safety. Contracts will be written to put more burden on the contractor to fulfill these requirements.

CCPL2 - OSDF Borrow Area Development

 East side of east field Borrow Area contains sufficient suitable material to complete cell liner and final cover construction. Gray clay is not used for clay liner or clay cap construction. Brown clay may be used for vegetative and contouring layers if the required quantity of gray clay is insufficient.

CCPL3 - OSDF Placement

- Impacted material placement is based on EPA approval of proposed IMPP change from 4-foot intervening layer to 2-foot intervening layer.
- The impacted material quantities remaining to be placed in the OSDF Cells are based on the 4/24/01 revision of the "Proposed SDFP Schedule/Budget –

Scenario 6" spreadsheets (i.e. 1,916,000 ICY total soils/debris including 377,400 ICY of debris).

- Impacted material, including double-bagged asbestos, packaged in closed containers will be delivered to the OSDF in a manner that the containers can be safely and easily unloaded. Improperly packaged containers will be returned to the originator for repackaging.
- Impacted material received at the OMTA and/or at the OSDF will meet approved waste acceptance criteria.
- An additional CAT 826 or equivalent compactor will be leased or purchased to support debris placement in construction years 2006 and 2007.
- The production area will operate as a contamination area to facilitate hauling of debris. Wheel washing will not be performed on roll-off box/debris trucks.
- Thorium-contaminated debris sent to the OSDF is to be covered by a surfactant budgeted for and applied by D&D prior to delivery to the OMTA. The OMTA will not become a thorium area after thorium contaminated material is dumped.
- Soils Excavation Project will load and haul thorium-contaminated soils/debris into trucks so as not to contaminate the truck tires and haul roads. OSDF will unload the truck so that the tires and haul roads are not contaminated.
- Debris will be received in the bulk debris area when the OSDF is shut down. Debris
 will be received in the container area when the OSDF is open. Transite will be
 delivered to the transite transfer area on flatbeds by Waste Generator Services and
 unloaded by the Cell Contractor.

CCPL4 - OSDF Phase III Construction, Material, Services

- Last application of ConCover will be in the spring of 2003.
- EPA approval of ConCover application.

CCPLA - OSDF Cell #2 Cap CCPLB - OSDF Cell #3 Cap CCPLD - OSDF Cell #4 Cap CCPLF - OSDF Cell #5 Cap CCPLH - OSDF Cell #6 Cap CCPLK - OSDF Cell #7 Cap CCPLC - OSDF Cell #4 Liner CCPLE - OSDF Cell #5 Liner CCPLG - OSDF Cell #6 Liner CCPLJ - OSDF Cell #7 Liner

 Over excavation of unsuitable subgrade material for OSDF cell liners will be less than 2,000 CY per cell.

1.2.2 Exclusions

- Treatment of surface water, leachate.
- Additional costs and schedule delays that result from DOE required accountability, criticality or other drills.
- Final restoration of the OSDF Borrow Area and areas outside of the limits of the OSDF Final Cover.
- Leachate contingency plans.
- Construction of Valve House #7.
- Excavation and hauling of impacted material from excavations, size reduction of debris and excavated material such as at- or below-grade structures, utilities, and concrete.
- Purchase and disposal of major pieces of construction equipment that cannot be decontaminated and removed from site.
- Dust Control on paved roads.
- Impacted Material Haul Road Removal.
- Size reduction of impacted material or debris from D&D projects.
- Construction costs for a laydown area at the Waste Pits railyard.
- Construction Quality Control services.
- Cost increases or schedule delays caused by other than normal weather.
- Cost increases or schedule delays for unforeseen subsurface geotechnical conditions or resulting from the discovery of cultural resources.

 Annual video inspection of solid wall HDPE pipes for leachate detection system, leachate collection system, and redundant leachate collection system will be performed by ARWWP.

1.2.3 Government-Furnished Equipment/Services

None

1.3 DRIVERS - General

- Approved OSDF Final Design.
- Sufficient building trade labor can be employed to support double shift excavation and placement in 2006 and 2007.
- Closure of North Access Road by end of FY04.
- Availability of matrixed labor after seasonal shutdowns.

1.4 PROJECT PHYSICAL DESCRIPTION

The On-Site Disposal Facility is located in the northeast corner of the FEMP. The facility is located within survey coordinates N483400, N480000, E1351750, and E1350600. There are several areas adjacent to the OSDF, which support the construction of the liners, caps and impacted material placement. These are the OSDF Borrow Area, the On-Site Disposal Facility Material Transfer Area (OMTA), the future OMTA Expansion Areas, the Construction Laydown Area, the future Construction Laydown Area, the Contractor's Administration Area and the OSDF North Stockpile Area.

The OSDF Borrow Area is south of the OSDF in an area bounded on the east by the Mid-Valley pipeline easement, on the west by the South Entrance Road, and on the south by Willey Road. The remaining area for OSDF Borrow Area development is approximately 30 acres and will be developed in seven Subareas.

The OMTA currently consists of two areas, the bulk debris area and the container area, both are located west of the OSDF. Both areas of the OMTA will be expanded as the project progresses.

The existing container area is bounded on the south by Building 77, on the west by "E" Street, on the east by the former production area fence, and it extends to the north to the former location of Building 78. The container area will be expanded to the north to the Impacted Material Haul Road and to the south approximately to the south edge of the existing water tower.

PBS-03, ON-SITE DISPOSAL FACILITY PROJECT CLOSURE PLAN BASIS OF ESTIMATE 20100-PL-0023, Revision 1 September 2001

The existing bulk debris area is bounded on the south by the Impacted Material Haul Road, on the north by the railyard, on the east by the OSDF and on the west by "B" Street. The bulk debris area will be expanded to the west into the area of the existing quonset huts. The expanded bulk debris area will be bounded on the north by the former production area fence, on the south by the Impacted Material Haul Road, on the east by "B" Street and on the west by stockpile SP-7.

The existing Construction Laydown Area is located west of the OSDF. It is bounded on the north by the Fire Training Road, on the south by the railyard on the east by the OSDF on the west by HWMU-1. Another construction laydown area will be built to the south of contingency OSDF Cell 8 and north of the OSDF Borrow Area.

The Contractor's Administration Area is located southeast of the OSDF. It is northeast of the OSDF Borrow Area and southeast of the form Sewage Treatment Plant.

The OSDF North Stockpile Area which is triangular in shape, is located north of the OSDF and south of the intersection of the new North Entrance Road and the old North Entrance Road.

1.5 PROJECT PLAN/TECHNICAL SCOPE AND QUANTIFICAITON

1.5.1 CCPL1 - OSDF Construction, Matrixed Labor

OSDF construction matrixed labor include: acquisitions, environmental safety and health (IH), rad operations, quality control, lab services, construction support services, waste generator services, public affairs, operation assurance, project control/cost scheduling. The construction schedule is based on (5) ten hour days, Monday through Friday through out the construction season and minimal matrixed support through the seasonal shutdown. The construction schedule is based on (5) ten-hour days on a double shift basis during excavation and placement in 2006 and 2007.

1) Task #1 - Matrixed Labor

1.1) Plan/Scope – Matrixed Labor

• These matrixed personnel are utilized to support the construction operations of the OSDF from FY01 through FY09. A majority of the matrixed labor support include safety, radiological control, quality assurance/control, are essential to the success of the construction execution. Safety personnel will coordinate with construction management personnel and the cell contractor's safety personnel on safety compliance and programs. Radiological technicians will perform air monitoring, radiological permitting, access control and OSDF operations coverage. Quality assurance/control will oversee the CQC contractor and monitor impacted material placement, liner construction, cap construction and borrow area management.

1.2) Quantification – Matrixed Labor

• See manpower schedule #1CD03

1.5.2 CCPL2 - OSDF Borrow Area Development

The scope of work for this charge number is the development of the OSDF Borrow Area. OSDF Borrow Area Development includes: submittals and procurement, site preparation, excavation, screening, and stockpiling of material for the OSDF liners and caps, interim restoration and close-out. Borrow Area Development will be performed by a construction contractor (cell contractor) from 2004 through 2008. Borrow Area Development in 2003 consists of excavation, screening and stockpiling of clay for Cell #4 liner and will be performed by Fluor Fernald, Inc.

1) Task #1 - Submittals and Procurement

1.1) Subtask #1 - Submittals

1.1)1 Plan/Scope - Submittals

Screening and stockpiling of clay for OSDF Liner #4 will be performed by Fluor Fernald. Prepare work plans, technical submittals and the submittal register. Work plans and technical submittals will be prepared by SDFP Engineering and supported by SDFP construction, safety and QC. Work plans include surface water management and erosion control plan, earthwork work plan, fugitive dust control, safe work plan, traffic control plan, borrow area management plan and QA plan.

The remainder of the Borrow Area Development will be performed by the cell contractor. Prepare work plans, technical submittals and the submittal register. Work plans and technical submittals will be prepared by the cell contractor. Work plans include surface water management and erosion control plan, earthwork work plan, fugitive dust control, safe work plan, traffic control plan, borrow area management plan, project specific health and safety plan and QA plan. The construction schedule for Borrow Area Development will be prepared by the cell contractor.

1.1)2 Quantification – Submittals

None

1.2) Subtask #2 - Procurement

1.2)1 Plan/Scope - Procurement

Procure material, equipment, labor and specialty contractor services for the screening and stockpiling of clay for the OSDF Cell #4 liner. The following material, equipment, labor and services will be procured by Fluor Fernald, Inc. for this activity:

- Material: none
- Equipment: heavy equipment, screener, conveyor vehicles, small tools.
- Labor: Building Trades Labor, Labor Support Contractor labor,
- Subcontractor/Services: port-o-let services and bottled water.

1.2)2 Quantification

Not applicable.

2) Task #2 - Site Preparation

Site Preparation includes Technical Specification Sections 02100, 02110, 02200, and 02721.

2.1) Plan/Scope - Site Preparation

- Mobilization of equipment, perform safety checks, training, installation of surface water management and erosion controls, excavation of test pits for preconformance testing, construction fence,
- Verification of existing conditions (including field surveys)
- Clearing and grubbing, access roads, preparation of construction area, stripping and stockpiling of topsoil
- Purchase and setup of an 8' x 12' field trailer
- Relocation of stockpiles as required
- Purchase/lease and setup of screening equipment. This activity will require a vendor representative to oversee setup.
- Dust control

2.2) Quantification – Site Preparation

The following are estimated quantities for the construction contractor per season:

- Mobilization of equipment will take 2 weeks and require 1 mechanic,
 1 superintendent, and 1 safety engineer
- Training, all labor must receive on-site training

- Installation of silt fence and excavation of test pits for pre-conformance testing will take 3 days and will require 2 laborers, 1 CAT 416 backhoe, 1 operator and 1,000 lf of silt fence.
- Field survey will take 1 day and will require 2 surveyors
- Stripping of approximately 5.5 acres or approximately 9,000 cy of top soil and stockpiling will take 8 days and will require 1 CAT D8 bulldozer, 1 CAT 966 loader, 2 operators, 3 Volvo A-30 trucks, 1 CAT 613 waterwagon, 4 teamsters, and 1 laborer
- Set up of the 8' x 12' field trailer will take 2 days and will require 2 laborers
- Stockpile SP-0028 is approximately 8,000 cy. Relocation will take 6 days and will require 1 CAT D8 bulldozer, 1 CAT 966 loader, 2 operators, 3 Volvo A-30 trucks, 1 CAT 613 waterwagon, 4 teamsters and 1 laborer.
- Installation of construction fencing will take 2 weeks and will require 2 laborers and 2,650 If of fencing
- Surface water management and erosion control/storm drainage ditched and culverts
- Install 30" CMP 100lf will require 1 CAT 330 excavator, 1 walk behind compactor, 1 CAT 563 compactor, 12 cyd pipe bedding, 2 laborers and 1 operators for 2 days.
- Excavate 500lf 2" bottom ditch this will require 1 CAT 330 trackhoe, 1 haul truck,
 1 operator for 3 days and 1 teamster and 1 laborer for 1 day.
- Setup of screener and conveyors will take 3 days and will require 1 CAT 330 excavator, 1 CAT 966 loader, 2 operators and 2 laborers.

3) Task #3 - Excavate and Screen Clay Material

Excavate and screen clay material include Technical Specification Sections 02200, 02225 and 13000

3.1) Plan/Scope - Excavation and Screen Clay Material

- Excavate clay material and push to stockpiles to be screened
- Load clay material from stockpiles and transport to screener
- Screen clay material, remove waste material for use as fill on permanent slopes of Borrow Area or stockpile for use as contouring or vegetative layer material

- Load and haul screened material to the Borrow Area Stockpile area
- Construction survey
- Dust control

3.2) Quantification

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Excavation, stockpiling, transportation to the screener, screening of clay, and hauling of clay and waste material to the Borrow Area stockpile area for each clay liner (liners 4) will take 86 days in FY03. This activity will require 1 screener, 2 conveyors, 1 CAT 330 excavator, 1 CAT 966 loader, 1 CAT D8 bulldozer, 1 CAT Challenger with disc, 3.5 operators, 3 Volvo A-30 trucks, 1 CAT 613 waterwagon, 4 teamsters, 1 laborer, 1 2" water pump, 1 small electric generator.
- Excavation, stockpiling, transporting to screener, screening of clay, and hauling of clay and waste material to the Borrow Area stockpile for each liner and cap from FY04 through FY08 will take 88 days for a cap and a liner per season. This activity will require 2 screeners, 4 conveyers, 2 CAT 330 excavators, 1 CAT 966 loader, 1 CAT D8 bulldozer, 1 CAT Challenger with disc, 4.5 operators, 3 Volvo A-30 trucks, 1 CAT 613 waterwagon, 4 teamsters, 2 laborers, 1-2" pump, and 1 small electric generator.
- Construction survey will take 20 days and will require 2 surveyors.
- 4) Task #4 Excavate and Stockpile Contouring Layer, Vegetative Layer and Topsoil Layer

Excavation and stockpile contouring layer, vegetative layer and topsoil layer includes Technical Specification Sections 02240 and 13000

- 4.1) Plan/Scope Excavate and Stockpile Contouring Layer, Vegetative Layer and Topsoil Layer
- Excavate material for contouring layer, vegetative layer and topsoil layer, load and haul to the Borrow Area Stockpile Area.
- Construction survey
- Dust control

4.2) <u>Quantification – Excavate and Stockpile Contouring Layer, Vegetative Layer and</u> Topsoil Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- This activity will take 50 days and require 1 CAT 330 excavator, 1 CAT D8 bulldozer, 1 CAT D6 bulldozer, 3 operators, 4 Volvo A-30 trucks, 4 teamsters and 1 laborer
- Construction survey will require 2 surveyors for 12 days
- Dust control will require 1 CAT 613 waterwagon and 1 teamster
- 5) Task #5 Interim Restoration

5.1) Plan/Scope – Interim Restoration

- Fine grading of slopes
- Fine grading of bottom of excavation
- Temporary seeding
- Installation of erosion mat on slopes
- Permanent seeding on final slopes by subcontractor
- Application of surfactant on stockpiles by subcontractor
- Construction survey
- Surface water management and erosion control
- Dust control

5.2) Quantification - Interim Restoration

Refer to table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Interim restoration will take 20 days and will require 1 CAT D6 LGP bulldozer,
 1 CAT challenger with disc, 2 operators, 1 Volvo A-30 trucks, 1 CAT 613 waterwagon, 2 teamsters, 2 laborers
- Construction survey will take 5 days and will require 2 surveyors
- Dust control

6) Task #6 - Closeout

6.1) Plan/Scope - Closeout

- Completion of project punchlist
- Final survey and redlines
- Demobilization

6.2) Quantification

The following are estimated quantities for the construction contractor:

1.5.3 CCPL3 – OSDF Placement

The scope of work for this charge number is impacted material placement and includes: submittals and procurement, site preparation, receiving soil/debris in the OSDF Material Transfer Area (OMTA), removal of portions of the impacted material haul road west of the OSDF, placement of OSDF Cell liner protective and select layers, placement of OSDF final cover select layers, placement of Category 1 through 5 material and close-out. Impacted material placement will be performed by the cell contractor. Impacted material placement is based on Rev. 1 and page change notices of the IMPP issued as of April 15, 2001.

1) Task #1 – Submittals

Submittals include Technical Specification 13010

1.1) Plan/Scope - Submittals

• Prepare work plans, technical submittals and the submittal register. Work plans and technical submittals will be prepared by the cell contractor. Work plans include surface water management and erosion control plan, earthwork work plan, fugitive dust control, safe work plan, traffic control plan, impacted material placement plan, project specific health and safety plan and QA plan. The construction schedule for impacted material placement will be prepared by the cell contractor.

1.2) Quantification - Submittals

Not applicable

2) Task #2 - Site Preparation

Site preparation includes Technical Specification Sections 02100 and 13010

2.1) Plan/Scope - Site Preparation

- Mobilization of equipment, perform safety checks, training, installation of surface water management and erosion controls, construction/Rad fence,
- Verification of existing conditions (including field surveys)
- Installation of construction signs and Cell grid signs

2.1) Quantification - Site Preparation

The following are estimated quantities for the construction contractor:

- Mobilization of equipment will take 2 weeks and require 1 mechanic,
 1 superintendent, and 1 safety engineer
- Training field labor force must receive on-site training
- Installation of silt fence will take 4 days and will require 2 laborers, 1 CAT 416 backhoe, 1 operator and 2,000 lf of silt fence.
- Installation of construction/Rad fencing will take 2 days and will require 2 laborers and 1,000 lf of fencing
- Field survey will take 1 day and will require 2 surveyors
- Installation of construction signs and Cell grid signs will take 3 days and will require
 2 laborers
- 3) Task #3 Receive Impacted Material at the OMTA

3.1) Plan/Scope - Receive Impacted Material at the OMTA

The OMTA will consist of four areas: 1) a container area; 2) a bulk debris area; 3) a transite transfer area; and 4) a bulk soil area.

• Waste Generator Services (WGS) will bring roll-off boxes of debris to the bulk debris area and dump the debris. The cell contractor will consolidate the material into piles. Debris will be received in the bulk debris area from December through February when the OSDF is shut down. The cell contractor will load bulk debris into transport vehicles, haul to OSDF and dump. The equipment in the bulk debris area will be utilized year round to consolidate material into piles and to load material to be transported to the OSDF.

- WGS will deliver roll-off boxes of debris to the container area. The cell contractor
 will pick up the containers, transport to the Cell, dump and return the containers to
 the container area. The container area will operate from March through November
 when the OSDF is open.
- WGS will deliver palletized/bundled transite to the transite transfer area and the cell contractor will unload the material. The cell contractor will load the transite onto flatbeds, transport to the Cell and unload the transite in the Cell.
- Cell contractor (soils excavation) will excavate, load and haul soil to the OMTA bulk soil area and consolidate into piles. The cell contractor will also excavate, load and haul bulk soil from the OMTA bulk soil area to the OSDF and dump.
- Lighting for double shift operations.

3.2) Quantification - Receive Impacted Material at the OMTA

The following are estimated quantities for the construction contractor:

- Consolidation of debris into piles in the bulk debris area will take place December through February. Loading of material from the bulk debris area and transport to the OSDF will take place March through December. These activities will require the same equipment and labor which will be 1 CAT 763 track loader with 4-way bucket, 1 CAT 330 excavator with grapple, 1 small hydroseeder for dust control, 1 farm tractor to pull the hydroseeder, 1 operator, and 2.5 laborers. Loading of bulk debris will also require 2 roll-off box trucks, 4 specialized roll-off boxes (Fluor Fernald currently owns 2 of the boxes) and 2 teamsters March through November.
- Transport of roll-off boxes from the container area to the OSDF will utilize the roll-off box trucks, teamster and laborers from the bulk debris area and will take place March through November.
- Unloading of transite in the transite transfer area, loading of the transite onto flatbeds, transporting to the OSDF and unloading in the Cell will take place from March through November. This activity will require 1 CAT TH83 forklift, 1 semi-tractor and 5 semi-flatbed trailers. Because this activity is intermittent, the operator and teamster required for this activity will be shared with other activities.
- Lighting for double shift operations in the OMTA will take place for 5.5 months per year in years 2006 and 2007. This activity will require 4 portable gas powered light plants for 5.5 months.

4) Task #4 - Removal of Impacted Portion of the OSDF Haul Road

Removal of impacted portion of the OSDF Haul Road includes Technical Specification Section 02200

4.1) Plan/Scope - Removal of Impacted Portion of the OSDF Haul Road

- Remove a 20-foot wide x 400-foot long section of the impacted material haul road adjacent to the west side of the OSDF. Excavation will be to a depth of 2.5 feet. This activity will occur 6 times (once each for Cells 2 through 7) in the construction season prior to the construction of a particular cap. The excavated impacted material will be placed in the OSDF. Equipment and labor for placement of this material is part of task 8 of this charge number.
- Construction survey
- Dust control

4.2) Quantification - Removal of Impacted Portion of the OSDF Haul Road

The following are estimated quantities for the construction contractor:

- Removal of the impacted material haul road will take 2 days and will require
 1 CAT 330 excavator, 1 CAT D8 bulldozer, 2 operators, 2 Volvo A-30 trucks,
 1 CAT 613 waterwagon (for dust control), 3 teamsters and 1 laborer.
 Approximately 750 cy of impacted material will be excavated.
- Construction survey will take 0.5 days and will require 2 surveyors
- 5) Task #5 Placement of the 12-Inch Protection Layer (Cell Liner)

Placement of the 12-inch protective layer (cell liner) includes Technical Specifications Impacted Material Placement Plan, 13010

5.1) Plan/Scope - Placement of the 12-Inch Protection Layer (Cell Liner)

- Placement of the 12-inch impacted material protective layer for the Cell liners will
 occur 4 times (once each for Cells 4 through 7). The in-place quantity will be
 approximately 11,000 cy for each Cell liner. The material will be excavated and
 delivered to the OSDF by the cell contractor (Soils Excavation Project).
- Construction survey
- Dust control

5.2) Quantification - Placement of the 12-Inch Protection Layer (Cell Liner)

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Placement of each of the 12" impacted material protective covers for the Cell liners will take 10 days and will require 1 CAT D6 LGP bulldozer, 1 operator, 1 CAT 613 waterwagon (for 5 days for dust control), 0.5 teamster, and 2 laborers
- Survey of the top of protective layer will take 2 days and will require 2 surveyors.
- 6) Task #6 Placement of 24 Inches of Select Impacted Material (Cell Liner)

Placement of 24 inches of select impacted material (cell liner) includes Technical Specifications Impacted Material Placement Plan, 13010

- 6.1) Plan/Scope Placement of 24 Inches of Select Impacted Material (Cell Liner)
- Placement of the 24" select impacted material for the Cell liners will occur 4 times (once each for Cells 4 through 7). The in-place quantity will be approximately 22,000 cy for each Cell liner. The material will be excavated and delivered to the OSDF by the cell contractor (soils excavation).
- Construction survey.
- Dust control

6.2) Quantification - Placement of 24 Inches of Select Impacted Material (Cell Liner)

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Placement of each of the 24" select impacted material layers for the Cell liners will take 20 days and will require 1 CAT D8 LGP bulldozer, 1 operator, 1 CAT 613 waterwagon (for 10 days for dust control), 0.5 teamster, and 2 laborers
- Survey of the top of select impacted material layer will take 1 day and will require
 2 surveyors.
- 7) Task #7 Placement of 36 Inches Select Impacted Material (Cell Cap)

Placement of 36 inches select impacted material (cell cap) includes Technical Specifications Impacted Material Placement Plan, 13010

7.1) Plan/Scope - Placement of 36 Inches Select Impacted Material (Cell Cap)

- Placement of the 36" select impacted material layer for the OSDF will occur 6 times (once each for Cells 2 through 7). The in-place quantity will be approximately 33,000 cy for each Cell cap. The material will be excavated and delivered to the OSDF by the cell contractor (soils excavation).
- Install 2 rows of silt fence on the east and west slopes of the cell.
- Construction survey.
- Dust control.

7.2) Quantification - Placement of 36 Inches Select Impacted Material (Cell Cap)

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Placement of each of the 36" select impacted material layers for the OSDF will take 20 days and will require 1 CAT D6 bulldozer, 1 operator, 1 CAT 613 waterwagon (for dust control), 1 teamster, and 2 laborers
- Installation of 2 rows of silt fence will require 1,600 If of silt fence. Labor for silt fence installation is included in the 36" select impacted material layer placement activity. Silt fence installation will require 1 trencher for 5 days.
- Survey of the top of select impacted material layer will take 1 day and will require 2 surveyors.

8) Task #8 - Placement of Impacted Material

Placement of impacted material includes Technical Specification Impacted Material Placement Plan, 13010

8.1) Plan/Scope - Placement of Impacted Material

- Recompaction of the Cell surface when placement begins in a given construction season
- Actual placement of impacted material will typically occur from mid-March through the end of November (8.5 months). Equipment mobilization, equipment decontamination, and equipment demobilization will require an additional 1.5 months. These activities will take place from mid-February through mid-December. Placement of all categories of impacted material is included, but a

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precise duration for each category cannot be determined in advance and is not necessary. The required equipment will be shifted between placement activities of different categories as needed. Placement of impacted material during construction years 2006 and 2007 will be performed on a double-shift basis. Shift differential will be applied to 2nd shift.

- Construction survey
- Dust control

8.2) Quantification - Placement of Impacted Material

The following are estimated quantities for the construction contractor:

- Recompaction of the Cell surface prior to placement of impacted material will take
 3 days. The equipment and labor is included in the placement activity.
- Placement of impacted material will require the following equipment for 10 months per year: 1 CAT D8 bulldozer, 1 CAT 563 smooth drum roller, 1 CAT 330 excavator, 1 CAT TH83 forklift, 3.5 operators, 2 CAT 613 waterwagons (for dust control), 1 semi-tractor, 2 teamsters, 5 laborers. Placement of impacted material will require 1 CAT 826 compactor for 12 months. During calendar years 2006 and 2007, 1 additional CAT 826 and 10 portable light plants will be required for 5.5 months per year.
- Construction survey will require 2 surveyors for 10 months.
- 9) Task #9 Closeout
- 9.1) Plan/Scope Closeout
- Completion of project punchlist
- Final survey and redlines
- Demobilization

9.2) Quantification

Not applicable

1.5.4 CCPL4 - OSDF Phase III Construction, Materials, Services

The following activities will be completed prior to implementation of CCPL4 and do not require plan and scope or quantity descriptions.

- Complete construction OMTA from "B" Street to east construction fence.
- Complete construction on Service Road N.W. or Cell #1.
- Complete construction or laydown yard west of Cell #2.
- Purchase or general services and materials.
- Complete purchase or stone/geosynthetics material for Cap #1 subcontractor.
- Excavation or the vegetative cover (gray clay) part of Cap #1 subcontractor.

1) Task #1 – Submittals and Procurement

1.1) Subtask #1 - Submittals

1.1)1 Plan/Scope - Submittals

 Prepare work plan for ConCover application, work plan and technical submittals will be prepared by SDFP engineering and supported by construction, safety, QA and resident engineer.

1.1)2 Quantification - Submittals

• 1 plan, 5 days – laborer, construction engineer, safety, QA, and resident engineer.

1.2) Subtask #2 - Procurement

1.2)1 Plan/Scope - Procurement

 Procure materials, equipment, labor, specialty subcontractor. The following materials, equipment, labor, and services will be procured for OSDF Phase III construction/materials and services:

Material: ConCover;

Equipment: vehicles, small tools and heavy equipment.

Labor: Building Trades Labor, Labor Support Contractor labor,

Subcontractor/Services: subcontractor for the application of ConCover.

1.2)2 Quantification - Procurement

6 requisitions, 1 laborer, and 1 buyer

- 2) Task #2 OSDF Phase III Construction
- 2.1) Plan/Scope OSDF Phase III Construction
- Completion of OSDF Phase III construction which includes the completion of the construction activities punchlist completion, red line drawings, turnover of any owner manuals. Completion of control and management of Cell #1 cap through 12/31/01 and project close out.
- 2.2) Quantification OSDF Phase III Construction
- Included in Phase III Cap contract, specifications, drawing, quantities and pay items.
- 3) Task #3 Application of ConCover 180 in Cell #2 and Cell #3
- 3.1) Plan/Scope Application of ConCover 180 in Cell #2 and Cell #3
- Applications: last quarter of FY01, 3rd quarter of FY02, 1st quarter of FY03, and 3rd quarter of FY03.
- This activity will require grading, shaping of impacted material surfaces to prevent erosion
- 3.2) Quantification Application of ConCover 180 in Cell #2 and Cell #3
- Grading/shaping impacted material surfaces will take 10 days for each application and will require 1 operator, 2 laborers, 1 teamster, 1 CAT D-6 dozer, 1 CAT 613 waterwagon, and 1 CAT 563 smooth drum roller. The area of impacted material surface for each application will be approximately 610,000 sf
- Application and decontamination of equipment used to apply ConCover will take
 5 days and will require 2 laborers.
- 4) Task #4 FY01 Impacted Material Placement
- 4.1) Plan/Scope FY-1 Impacted Material Placement
- Impacted material placement

4.2) Quantification - FY01 Impacted Material Placement

Place 60,000 cy of impacted material in Cell #2 and Cell – 3.5 months. Impacted soil, 50,000 cy and Category #2 and Category #4 debris – 10,000 cy 1 CAT D8 bulldozer, 1 Cat 826 compactor, 1 Cat 563 compactor, CAT 613 waterwagon, CAT 963 track loader, 1 Cat 322 trackhoe/grappler, 2 ROB trucks – 4 operators, 2 teamsters and 6 laborers

5) Task #5 - OMTA Expansion/Transite Transfer Area

5.1) Plan/Scope - OMTA Expansion/Transite Transfer Area

• Construction OMTA expansion from "B" Street west along north process fence and construct Transite Transfer Area.

5.2) Quantification - OMTA Expansion/Transite Transfer Area

- 4.7 acres or stoned transfer area 1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 1 CAT 613 waterwagon, 1 CAT 963 loader, 1 Volvo A-30 truck, 2 operators, 2 Teamsters, 3 Laborers 11,500 tons of #304 stone 12" thick, 1 CAT D8 bulldozer with spreader box, 500 lf of construction fence.
- Electric poles to run two air monitors 6 poles 1000 If of cable 2 electricians, bucket truck, 10 days, 2 operators, 2 teamsters, 3 laborers 2.5 months, 1 operator, stone spreader 12 days.
- 6) Task #6 OMTA Operations/Bulk Debris

6.1) Plan/Scope - OMTA Operations/Bulk Debris

Receiving, dumping, stockpiling bulk debris material in OMTA bulk debris impacted debris coming from D&D complexes. This activity will extend through FY01 to last quarter of FY03, but does not begin until task 4 of this charge number is complete. This activity also covers minor control and management activities in OSDF. This activity runs through the winter months.

6.2) Quantification - OMTA Operations/Bulk Debris

1 CAT 963 loader, Cat 322 trackhoe with grappler, 1 hydro-seeder, 1 farm tractor.
 1 operator, 3 laborers, 2" gas pump, 0.25 teamster. 40 hours per week – FY01-FY03.

1.5.5 CCPLA - OSDF Cell #2 Cap

The scope of work for this charge number is the construction of the OSDF Cell #2 cap which includes: submittals and procurement, site preparation, contouring layer, clay cap, geosynthetic cap, drainage layer, biointrusion barrier with choking layer, filter layer, vegetative layer, topsoil, vegetation and close-out.

Construction of Cell #2 cap will be performed by the cell contractor.

- 1) Task #1 Submittals and Procurement
- 1.1) Subtask #1 Submittals
- 1.1)1 Plan/Scope Submittals
- Prepare work plans, technical submittals and the submittal register. Work plans
 and technical submittals will be prepared by the cell contractor. Work plans include
 surface water management and erosion control plan, earthwork work plan, fugitive
 dust control, safe work plan, traffic control plan, project specific health and safety
 plan and QA plan. The construction schedule for Cell #2 cap will be prepared by
 the cell contractor.
- 1.1)2 Quantification Submittals

Not applicable

- 1.2) Subtask #2 Procurement
- 1.2)1 Plan/Scope Procurement
- The following material will be procured by Fluor Fernald, Inc. for the OSDF Cell #2 cap:

Material: GCL, GML with welding rod, geotextile

Equipment: None Labor: None

Subcontractor/Services: None

1.2)3 Quantification - Procurement

Not applicable

2) Task #2 - Site Preparation

Technical specification sections 02100, 02110, 02150, 02200, 02230, 02270, 02721

2.1) Plan/Scope - Site Preparation

- Mobilization of equipment, perform safety checks, training, installation of surface water management and erosion controls, construction fence, verification of existing conditions (including field surveys), clearing and grubbing, excavation, and culvert installation
- Construction of an access/service road on the west side of the OSDF. This activity
 will require fill and gravel surfacing. The gravel will be delivered to the site from
 outside suppliers.
- Rework the drainage ditch on the west side of Cell #2
- Excavation of the sacrificial clay wedges and removal of 20 foot wide x 400 foot long OSDF haul road from the west side of the OSDF. Placement of impacted material into the OSDF from road removal is covered by CCPL3. Stockpiling of non-impacted material from road removal is covered under this charge number
- Dust control

2.2) Quantification - Site Preparation

The following are estimated quantities for the construction contractor:

- Mobilization of equipment will take 2 weeks and require 1 mechanic, and 1 superintendent
- Training, all labor must receive on-site training
- Relocation of Rad fencing will take 1 week and will require 2 laborers and 1,600 lf of fencing
- Construction of the access road/ service road on the west side of the OSDF will require 600 cy of fill. This activity will take 2 days and will require 1 CAT D6 bulldozer, 1 CAT 825 sheep's foot roller, 2 operators, 3 Volvo A-30 truck, 1 CAT 613 waterwagon (for 1 day for dust control), 3.5 teamsters and 1 laborer. This activity will require placement of 500 tons of #304 stone for the service road.
- Placement of the #304 stone for the access road/ service road will take 1 day and will require 5,200 CY of stone, 1 CAT D6 bulldozer, 1 CAT 563 smooth drum

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CAT 613 waterwagon (for ½ day for dust control), 1 teamster porer.

t long V-drainage ditch on the west side of Cell #2 will take re 2,000 cy of fill, 1 CAT 330 excavator, 1 CAT D6 bulldozer, drum roller, 2 operators, 3 Volvo A-30 trucks, 1 CAT 613 days), 3.25 operators and 1 laborer. Placement of riprap in days and will require 300 tons of type "D" riprap, 1 CAT 330 bulldozer, 2 operators and 2 laborers.

bot wide x 400 foot long OSDF haul road from the west side of ation of sacrificial clay wedge will take 5 days and will require ozer, 1 CAT 330 excavator, 2 operators, 2 Volvo A-30 trucks, gon (for dust control), 2.5 teamsters and 1 laborer

g Layer

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ring Layer

fence (two rows) from select impacted material layer
o of the existing select impacted material layer
p of select layer
np with non-impacted contouring layer material
material contouring layer
n-impacted material contouring layer
gement and erosion control

ouring Layer

silt fence (two rows) from select impacted material layer will equire 1 CAT 416 Backhoe, 1 operator and 2 laborers.

ation of the top of the existing select impacted material layer vill require 2 surveyors.

acting the top of the select layer will take 5 days and will ldozer, 1 CAT 563 smooth drum roller, 2 operators, 1 CAT r dust control), 1 teamster and 2 laborers.

access ramp will take 2 days and will require 1 CAT 330 B LGP bulldozer, 1 CAT 825 sheep's foot roller, 3 operators,

6 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 1 day for dust control), 6.5 teamsters, and 1 laborer

- Placement of the non-impacted material contouring layer will take 10 days and will require 1 CAT 330 excavator, 1 CAT D6 LGP bulldozer, 1 CAT 825 sheep's foot roller (for 5 days), 2.5 operators, 6 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 5 days for dust control), 6.5 teamsters and 2 laborers.
- Survey and verification of the top of the contouring layer will take 1 day and will require 2 surveyors for 1 day.

4) Task #4 - Clay Cap

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Technical specification section 02225

- 4.1) Plan/Scope Clay Cap
- Maintain the Borrow Area Haul Road
- Provide traffic control at intersection of Borrow Area Haul Road and North Entrance Road. This activity consists of installing stop signs and removing stop signs after completion of hauling of the material from the Borrow Area.
- Excavate, load and haul clay cap material from OSDF Borrow Area stockpiles and haul to OSDF Cell #2 cap
- Placement, compaction, maintenance and survey of the clay surface. The clay cap will be overbuilt 0.1" to 0.3" to allow for possible desiccation cracking of the clay surface. Approximately 0.1" to 0.2" of the excess material will be removed as installation of GCL progresses from east to west.
- Construction survey
- Dust control

4.2) Quantification - Clay Cap

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

 Excavation, loading and hauling of the clay from the Borrow Area stockpiles will take 20 days and will require 1 CAT 330 excavator, 1 operator, 6 Volvo A-30 trucks and 6 teamsters

- Placement, compaction of 18,000 ICY of clay will take 20 days and will require 1 CAT D6 LGP bulldozer, 1 CAT SS250 soil stabilizer, 1 CAT 563 smooth drum roller, 1 CAT 825 sheep's foot roller, 3.5 operators, 1 CAT 613 waterwagon (for dust control), 1 teamster, and 3 laborers
- Removal of excess clay will require 1 CAT D8 LGP bulldozer, 1 CAT 330 excavator, 1 CAT 563 smooth drum roller, 2.5 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), and 3 teamsters. This activity will take 5 days.
- Survey of the finished clay surface will require 2 surveyors for 1 day.

5) Task #5 - Geosynthetic Cap

Technical specification sections 02714, 02770 and 02772)

5.1) Plan/Scope - Geosynthetic Cap

- Receiving, unloading, inspecting, storing geosynthetic cap materials (GCL, GML and geotextile)
- Top of clay liner surface acceptance by Fluor Fernald, GML specialty contractor, and CQC consultant
- GCL, GML and geotextile deployment
- Panel layout, welding, seaming, non-destructive GML testing and repair of GML to be performed by the cell contractor. Sewing of geotextile to be performed by the contractor. Movement of the GCL, GML and geotextile from the storage area will be performed concurrently with deployment of the material.
- Leak detection testing of GML by specialty contractor.
- Location survey of GML panels and seams will be performed by the cell contractor
- Construction survey
- Dust control

5.2) Quantification - Geosynthetic Cap

Refer to Tables 1.5.A and 1.5.B for material procurement and/placement quantities. The following are estimated quantities for the construction contractor:

- Receiving, unloading, inspecting and storing geosynthetic liner material will take
 8 days over a period of one month. This activity will require 1 CAT TH83 forklift,
 1 operator and 2 laborers.
- Acceptance of the top of clay liner will require 2 surveyors for 1 day.
- Deployment of the GCL, GML and geotextile will take 17 days and will require 1 posi-trac, 1 CAT 563 smooth drum roller, 1 CAT TH83 forklift, 2.5 operators and 10 laborers. Installation of the liner includes panel layout, welding, seaming, non-destructive testing, repair of GML and sewing of geotextile.
- Leak detection testing of the GML will be performed by the cell contractor and will take 5 days. This activity will require 1 posi-trac, 1 operator, 2 laborers and a 2" gas powered pump.
- Placement of geotextile will be by the cell contractor. This activity will take 5 days and require 1 posi-trac, 1 CAT TH83 forklift, 2 operators and 6 laborers. The sewing of the geotextile will be by the cell contractor.
- Location survey of the GML panels and seams will require 2 surveyors for one day.

6) Task #6 - Drainage Layer

Technical specification section 02710

6.1) Plan/Scope - Drainage Layer

- Receiving, stockpiling and inspecting the #78 stone will occur west of OSDF Cell #2
- Placing drainage layer, rolling and surveying of drainage layer surface
- Construction survey
- Dust control

6.2) Quantification - Drainage Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

 Receiving, stockpiling and inspection of 30,000 tons of #78 stone for the drainage layer will take 25 days and will require 1 CAT D8 LGP bulldozer, 1 operator and 1 laborer to act as a spotter

- Placement of the #78 stone will take 20 days. This activity will require 2 CAT D6 bulldozers, 1 CAT 966 loader, 1 CAT 563 smooth drum roller, 3 operators, 4 Volvo A-30 trucks, 4 teamsters, and 2 laborers
- Construction survey will require 2 surveyors for 1 day
- Dust control for receiving and placement will require 1 CAT 613 waterwagon (for 11 days) and 0.5 teamster

7) Task #7 - Biointrusion Barrier

Technical specification section 02280

7.1) Plan/Scope - Biointrusion Barrier

- Receiving, unloading, inspecting and storing biointrusion barrier and choke stone materials
- Survey and verify top of drainage layer elevation prior to placement of biointrusion barrier
- Place biointrusion barrier and choke stone
- Dust control

7.2) Quantification - Biointrusion Barrier

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Receiving, stockpiling and inspection of 57,000 tons of riprap for the biointrusion barrier and 4,500 tons of choke stone will take 40 days and will require 1 CAT D8 LGP bulldozer, 1 operator, 1 CAT 613 waterwagon (for 10 days for dust control), 0.25 teamster, and 1 laborer to act as a spotter.
- Verification and survey of the top of the drainage layer will take 1 day and will require 2 surveyors.
- Placement of the riprap and choke stone will take 30 days. This activity will require 2 CAT D8 LGP bulldozers, 1 CAT 966 loader, 1 CAT 330 excavator, 1 CAT 563 smooth drum roller, 4.5 operators, 4 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), 4.5 teamsters, and 2 laborers.

8) Task #8 - Filter Layer

Technical specification section 02712

8.1) Plan/Scope - Filter Layer

- Receive and stockpile filter layer material (sand) from off site supplier.
- Survey and verify top of biointrusion barrier elevation prior to placement of filter layer.
- Loading, hauling, and placement of the filter layer material
- Dust control

8.2) Quantification - Filter Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Receiving and stockpiling 12,000 tons of filter layer material will take 12 days and will require 1 CAT D8 bulldozer, 1 operator, 1 CAT 613 waterwagon (for 3 days for dust control), 0.25 teamster and 1 laborer.
- Survey of the biointrusion barrier will take 1 day and will require 2 surveyors.
- Loading, hauling, and placement of the filter layer material will take 10 days and will require 1 CAT D6 LGP bulldozer, 1 CAT 966 loader, 2 operators, 4 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 3 days for dust control), 4.25 teamsters, and 1 laborer.

9) Task #9 - Vegetative Layer

Technical specification section 02930

9.1) Plan/Scope - Vegetative Layer

- Maintain the Borrow Area Haul Road
- Survey and verify top of filter layer elevation prior to placement of the vegetative layer.
- Load vegetative layer material from OSDF Borrow Area stockpiles and haul to OSDF Cell #2

- Placement of the vegetative layer
- Dust control

9.2) Quantification - Vegetative Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon (for dust control), 1 operator and 1 teamster. Because the work is intermittent (less than 2 hours per week during cap construction) labor and equipment will be used on an as needed basis and taken from the vegetative layer construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the vegetative layer activity.
- Survey of the top of filter layer elevation will require 2 surveyors for 1 day.
- Loading of vegetative layer material from the Borrow Area stockpiles will require
 1 CAT 330 excavator and 1 operator. Hauling of the material will require 6 Volvo
 A-30 trucks and 6 teamsters. The activity will take 20 days to complete. Dust
 control will be performed by the CAT 613 waterwagon and the teamster covered
 by the Borrow Area Development (charge number CCPL2).
- Placement of the vegetative layer will take 20 days to complete and will require
 1 CAT D6 low-ground pressure bulldozers, 1 CAT 825 sheep's foot roller, 1 CAT
 563 smooth drum roller, 4 operators, 1 CAT 613 waterwagon, and 1 teamster, and
 3 laborers.

10) Task #10 - Topsoil Layer

Technical specification section 02920

10.1) Plan/Scope - Topsoil Layer

- Maintain the Borrow Area Haul Road
- Survey and verify top of vegetative layer elevation prior to placement of the topsoil layer.
- Load topsoil layer material from OSDF Borrow Area stockpiles and haul to OSDF Cell #2
- Placement of the topsoil layer

Dust control

10.2) Quantification - Topsoil Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon (for dust control), 1 operator and 1 teamster. Because the work is intermittent (less than 2 hours per week during cap construction) labor and equipment will be used on an as needed basis and taken from the topsoil layer construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the topsoil layer activity.
- Survey of the top of vegetative layer elevation will require 2 surveyors for 1 day.
- Loading of topsoil layer material from the Borrow Area stockpiles will require 1 CAT 330 excavator and 1 operator. Hauling of the material will require 6 Volvo A-30 trucks and 6 teamsters. The activity will take 2 days to complete. Dust control will be performed by the CAT 613 waterwagon (for dust control) and the teamster covered by the Borrow Area Development (charge number CCPL2).
- Placement of the topsoil layer will require 1 CAT D6 low-ground pressure bulldozers, 1 CAT 825 sheep's foot roller, 1 CAT 563 smooth drum roller, 4 operators, 1 CAT 613 waterwagon, and 1 teamster, and 3 laborers.

11) Task #11 - Permanent Vegetation

Technical specification section 02930

11.1) Plan/Scope - Permanent Vegetation

 Plant permanent vegetation on the Cell #2 final cover including seeding and erosion mat

11.2) Quantification - Permanent Vegetation

The following are estimated quantities for the construction contractor:

Permanent vegetation and installation of erosion mat will take 15 days and will require 1 CAT D6 bulldozer, 1 farm tractor with disc, 1 mechanical seed drill, 1 operator, 1 CAT 613 waterwagon (for dust control), 1 teamster, and 5 laborers. Cell #2 final cover surface that will require permanent vegetation is 7.25 acres.

12) Task #12 - Closeout

12.1) Plan/Scope - Closeout

- Completion of project punchlist
- Final survey and redlines
- Demobilization

12.2) Quantification - Close-out

Not applicable

1.5.6 CCPLB - OSDF Cell #3 Cap

The scope of work for this charge number is the construction of the OSDF Cell #3 cap which includes: submittals and procurement, site preparation, contouring layer, clay cap, geosynthetic cap, drainage layer, biointrusion barrier with choking layer, filter layer, vegetative layer, topsoil, vegetation and close-out.

R1 – D-554 Construction of Cell #3 cap will be performed by Fluor Fernald, Inc. (self-performed) with the exception of the following activities: GML installation—panel layout, welding, seaming, testing and repair of GML, sewing of geotextile and leak detection testing of GML. Specialty contractors will perform these activities the cell contractor.

1) Task #1 - Submittals and Procurement

1.1) Subtask #1 - Submittals

1.1)1 Plan/Scope - Submittals

Prepare work plans, technical submittals and the submittal register. Work plans
and technical submittals will be prepared by the cell contractor. Work plans include
surface water management and erosion control plan, earthwork work plan, fugitive
dust control, safe work plan, traffic control plan, project specific health and safety
plan and QA plan. The construction schedule for Cell #3 cap will be prepared by
the cell.

1.1)2 Quantification - Submittals

Not applicable

1.2) Subtask #2 - Procurement

1.2)1 Plan/Scope - Procurement

The following material will be procured by Fluor Fernald, Inc. for the OSDF Cell #3 cap:

Material: GCL, GML with welding rod, geotextile

Equipment: None Labor: None

Subcontractor/Services: None

1.2)2 Quantification - Procurement

Not applicable

2) Task #2 - Site Preparation

Technical specification sections 02100, 02110, 02150, 02200, 02230, 02270, 02721)

2.1) Plan/Scope - Site Preparation

- Mobilization of equipment, perform safety checks, training, installation of surface water management and erosion controls, construction fence, verification of existing conditions (including field surveys), clearing and grubbing, excavation, and culvert installation
- Construction of an access/service road on the west side of the OSDF. This activity
 will require fill and gravel surfacing. The gravel will be delivered to the site from
 outside suppliers.
- Rework the drainage ditch on the west side of Cell #3
- Excavation of the sacrificial clay wedges and removal of 20 foot wide x 400 foot long OSDF haul road from the west side of the OSDF. Placement of impacted material into the OSDF from road removal is covered by CCPL3. Stockpiling of non-impacted material from road removal is covered under this charge number
- Dust control

2.2) Quantification - Site Preparation

The following are estimated quantities for the construction contractor:

Mobilization of equipment will take 2 weeks and require 1 mechanic, and
 1 superintendent

- Training, all labor must receive on-site training
- Relocation of Rad fencing will take 1 week and will require 2 laborers and 1,600 lf of fencing
- Construction of the access road/ service road on the west side of the OSDF will require 600 cy of fill. This activity will take 2 days and will require 1 CAT D6 bulldozer, 1 CAT 825 sheep's foot roller, 2 operators, 3 Volvo A-30 truck, 1 CAT 613 waterwagon (for 1 day for dust control), 3.5 teamsters and 1 laborer. This activity will require placement of 500 tons of #304 stone for the service road.
- Placement of the #304 stone for the access road/ service road will take 1 day and will require 5,200 CY of stone, 1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 2 operators, 1 CAT 613 waterwagon (for ½ day for dust control), 1 teamster (for ½ day) and 1 laborer.
- Rework of the 400 ft long V-drainage ditch on the west side of Cell #3 will take 3 days and will require 2,000 cy of fill, 1 CAT 330 excavator, 1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 2 operators, 3 Volvo A-30 trucks, 1 CAT 613 waterwagon (for .75 days), 3.25 operators and 1 laborer. Placement of riprap in the ditch will take 2 days and will require 300 tons of type "D" riprap, 1 CAT 330 excavator, 1 CAT D6 bulldozer, 2 operators and 2 laborers
- Removal of the 20 foot wide x 400 foot long OSDF haul road from the west side of the OSDF and excavation of sacrificial clay wedge will take 5 days and will require 1 CAT D6 LGP bulldozer, 1 CAT 330 excavator, 2 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), 2.5 teamsters and 1 laborer

3) Task #3 - Contouring Layer

Technical specification 02240

3.1) Plan/Scope - Contouring Layer

- Remove existing silt fence (two rows) from select impacted material layer
- Survey and verify top of the existing select impacted material layer
- Grade, recompact top of select layer
- Construct access ramp with non-impacted contouring layer material
- Place non-impacted material contouring layer
- Survey and verify non-impacted material contouring layer
- Surface water management and erosion control
- Dust contro!

3.2) Quantification - Contouring Layer

- Removal of existing silt fence (two rows) from select impacted material layer will take 1 day and will require 1 CAT 416 Backhoe, 1 operator and 2 laborers.
- Surveying and verification of the top of the existing select impacted material layer will take 1 day and will require 2 surveyors.
- Grading and recompacting the top of the select layer will take 5 days and will require1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 2 operators, 1 CAT 613 waterwagon (for dust control), 1 teamster and 2 laborers.
- Construction of the access ramp will take 2 days and will require 1 CAT 330 excavator, 1 CAT D6 LGP bulldozer, 1 CAT 825 sheep's foot roller, 3 operators, 6 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 1 day for dust control), 6.5 teamsters, and 1 laborer
- Placement of the non-impacted material contouring layer will take 10 days and will require 1 CAT 330 excavator, 1 CAT D6 LGP bulldozer, 1 CAT 825 sheep's foot roller (for 5 days), 2.5 operators, 6 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 5 days for dust control), 6.5 teamsters and 2 laborers.
- Survey and verification of the top of the contouring layer will take 1 day and will require 2 surveyors for 1 day.

4) Task #4 - Clay Cap

Technical specification section 02225

4.1) Plan/Scope - Clay Cap

- Maintain the Borrow Area Haul Road
- Provide traffic control at intersection of Borrow Area Haul Road and North Entrance Road. This activity consists of installing stop signs and removing stop signs after completion of hauling of the material from the Borrow Area.
- Excavate, load and haul clay cap material from OSDF Borrow Area stockpiles and haul to OSDF Cell #3 cap
- Placement, compaction, maintenance and survey of the clay surface. The clay cap
 will be overbuilt 0.1" to 0.3" to allow for possible desiccation cracking of the clay
 surface. Approximately 0.1" to 0.2" of the excess material will be removed as
 installation of GCL progresses from east to west.

- Construction survey
- Dust control

4.2) Quantification - Clay Cap

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Excavation, loading and hauling of the clay from the Borrow Area stockpiles will take 20 days and will require 1 CAT 330 excavator, 1 operator, 6 Volvo A-30 trucks and 6 teamsters
- Placement, compaction of 18,000 ICY of clay will take 20 days and will require 1 CAT D6 LGP bulldozer, 1 CAT SS250 soil stabilizer, 1 CAT 563 smooth drum roller, 1 CAT 825 sheep's foot roller, 3.5 operators, 1 CAT 613 waterwagon (for dust control), 1 teamster, and 3 laborers
- Removal of excess clay will require 1 CAT D8 LGP bulldozer, 1 CAT 330 excavator, 1 CAT 563 smooth drum roller, 2.5 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), and 3 teamsters. This activity will take 5 days.
- Survey of the finished clay surface will require 2 surveyors for 1 day.

5) Task #5 - Geosynthetic Cap

Technical specification sections 02714, 02770 and 02772

5.1) Plan/Scope - Geosynthetic Cap

- Receiving, unloading, inspecting, storing geosynthetic cap materials (GCL, GML and geotextile)
- Top of clay liner surface acceptance by Fluor Fernald, GML specialty contractor, and CQC consultant
- GCL, GML and geotextile deployment
- Panel layout, welding, seaming, non-destructive GML testing and repair of GML to be performed by the cell contractor. Sewing of geotextile to be performed by the cell contractor. Movement of the GCL, GML and geotextile from the storage area will be performed concurrently with deployment of the material.
- Leak detection testing of GML by specialty contractor.

- Location survey of GML panels and seams will be performed by the cell contractor
- Construction survey
- Dust control

5.2) Quantification - Geosynthetic Cap

Refer to Tables 1.5.A and B for material procurement and/placement quantities. The following are estimated quantities for the construction contractor:

- Receiving, unloading, inspecting and storing geosynthetic liner material will take
 8 days over a period of one month. This activity will require 1 CAT TH83 forklift,
 1 operator and 2 laborers.
- Acceptance of the top of clay liner will require 2 surveyors for 1 day.
- Deployment of the GCL, GML and geotextile will take 17 days and will require 1 posi-trac, 1 CAT 563 smooth drum roller, 1 CAT TH83 forklift, 2.5 operators and 10 laborers. Installation of the liner includes panel layout, welding, seaming, non-destructive testing, repair of GML and sewing of geotextile.
- Leak detection testing of the GML will be performed by the cell contractor and will take 5 days. This activity will require 1 posi-trac, 1 operator, 2 laborers and a 2" gas powered pump.
- Placement of geotextile will be by the cell contractor. This activity will take 5 days and require 1 posi-trac, 1 CAT TH83 forklift, 2 operators and 6 laborers. The sewing of the geotextile will be by the cell contractor.
- Location survey of the GML panels and seams will require 2 surveyors for one day.

6) Task #6 - Drainage Layer

Technical specification section 02710)

6.1) Plan/Scope - Drainage Layer

- Receiving, stockpiling and inspecting the #78 stone will occur west of OSDF Cell #3.
- Placing drainage layer, rolling and surveying of drainage layer surface
- Construction survey

Dust control

6.2) Quantification - Drainage Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Receiving, stockpiling and inspection of 30,000 tons of #78 stone for the drainage layer will take 25 days and will require 1 CAT D8 LGP bulldozer, 1 operator and 1 laborer to act as a spotter.
- Placement of the #78 stone will take 20 days. This activity will require 2 CAT D6 bulldozers, 1 CAT 966 loader, 1 CAT 563 smooth drum roller, 3 operators, 4 Volvo A-30 trucks, 4 teamsters, and 2 laborers.
- Construction survey will require 2 surveyors for 1 day.
- Dust control for receiving and placement will require 1 CAT 613 waterwagon (for 11 days) and 0.5 teamster.

7) Task #7 - Biointrusion Barrier

Technical specification section 02280

7.1) Plan/Scope - Biointrusion Barrier

- Receiving, unloading, inspecting and storing biointrusion barrier and choke stone materials
- Survey and verify top of drainage layer elevation prior to placement of biointrusion barrier.
- Place biointrusion barrier and choke stone
- Dust control

7.2) Quantification - Biointrusion

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

 Receiving, stockpiling and inspection of 57,000 tons of riprap for the biointrusion barrier and 4,500 tons of choke stone will take 40 days and will require 1 CAT D8 LGP bulldozer, 1 operator, 1 CAT 613 waterwagon (for 10 days for dust control), 0.25 teamster, and 1 laborer to act as a spotter.

- Verification and survey of the top of the drainage layer will take 1 day and will require 2 surveyors.
- Placement of the riprap and choke stone will take 30 days. This activity will require 2 CAT D8 LGP bulldozers, 1 CAT 966 loader, 1 CAT 330 excavator, 1 CAT 563 smooth drum roller, 4.5 operators, 4 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), 4.5 teamsters, and 2 laborers.

8) Task #8 - Filter Layer

Technical specification section 02712

8.1) Plan/Scope - Filter Layer

- Receive and stockpile filter layer material (sand) from off site supplier.
- Survey and verify top of biointrusion barrier elevation prior to placement of filter layer.
- Loading, hauling, and placement of the filter layer material
- Dust control

8.2) Quantification - Filter Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Receiving and stockpiling 12,000 tons of filter layer material will take 12 days and will require 1 CAT D8 bulldozer, 1 operator, 1 CAT 613 waterwagon (for 3 days for dust control), 0.25 teamster and 1 laborer.
- Survey of the biointrusion barrier will take 1 day and will require 2 surveyors.
- Loading, hauling, and placement of the filter layer material will take 10 days and will require 1 CAT D6 LGP bulldozer, 1 CAT 966 loader, 2 operators, 4 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 3 days), 4.25 teamsters, and 1 laborer.

9) Task #9 - Vegetative Layer

Technical specification section 02930

9.1) Plan/Scope - Vegetative Layer

Maintain the Borrow Area Haul Road

- Survey and verify top of filter layer elevation prior to placement of the vegetative layer.
- Load vegetative layer material from OSDF Borrow Area stockpiles and haul to OSDF
- Placement of the vegetative layer
- Dust control

9.2) Quantification - Vegetative Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon (for dust control), 1 operator and 1 teamster. Because the work is intermittent (less than 2 hours per week during cap construction) labor and equipment will be used on an as needed basis and taken from the vegetative layer construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the vegetative layer activity.
- Survey of the top of filter layer elevation will require 2 surveyors for 1 day.
- Loading of vegetative layer material from the Borrow Area stockpiles will require
 1 CAT 330 excavator and 1 operator. Hauling of the material will require 6 Volvo
 A-30 trucks and 6 teamsters. The activity will take 20 days to complete. Dust
 control will be performed by the CAT 613 waterwagon and the teamster covered
 by the Borrow Area Development (charge number CCPL2).
- Placement of the vegetative layer will take 20 days to complete and will require
 1 CAT D6 low-ground pressure bulldozers, 1 CAT 825 sheep's foot roller, 1 CAT
 563 smooth drum roller, 4 operators, 1 CAT 613 waterwagon, and 1 teamster, and
 3 laborers.

10) Task #10 - Topsoil Layer

Technical specification section 02920

10.1) Plan/Scope - Topsoil Layer

- Maintain the Borrow Area Haul Road
- Survey and verify top of vegetative layer elevation prior to placement of the topsoil layer.

- Load topsoil layer material from OSDF Borrow Area stockpiles and haul to OSDF Cell #3
- Placement of the topsoil layer
- Dust control

10.2) Quantification - Topsoil Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon (for dust control), 1 operator and 1 teamster. Because the work is intermittent (less than 2 hours per week during liner construction) labor and equipment will be used on an as needed basis and taken from the topsoil layer construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the topsoil layer activity.
- Survey of the top of vegetative layer elevation will require 2 surveyors for 1 day.
- Loading of topsoil layer material from the Borrow Area stockpiles will require 1 CAT 330 excavator and 1 operator. Hauling of the material will require 6 Volvo A-30 trucks and 6 teamsters. The activity will take 2 days to complete. Dust control will be performed by the CAT 613 waterwagon (for dust control) and the teamster covered by the Borrow Area Development (charge number CCPL2).
- Placement of the topsoil layer will require 1 CAT D6 low-ground pressure bulldozers, 1 CAT 825 sheep's foot roller, 1 CAT 563 smooth drum roller, 4 operators, 1 CAT 613 waterwagon (for dust control), and 1 teamster, and 3 laborers.

11) Task #11 - Permanent Vegetation

Technical specification section 02930

11.1) Plan/Scope - Permanent Vegetation

• Plant permanent vegetation on the Cell #3 final cover including seeding and erosion mat.

11.2) Quantification - Permanent Vegetation

- Permanent vegetation and installation of erosion mat will take 15 days and will require 1 CAT D6 bulldozer, 1 farm tractor with disc, 1 mechanical seed drill, 1 operator, 1 CAT 613 waterwagon (for dust control), 1 teamster, and 5 laborers. Cell #3 final cover surface that will require permanent vegetation is 7.25 acres
- 12) Task #12 Closeout
- 12.1) Plan/Scope Closeout
- Completion of project punchlist
- Final survey and redlines
- Demobilization
- 12.2) Quantification Closeout

Not applicable

1.5.7 CCPLC - OSDF Cell #4 Liner

The scope of work for this charge number is the construction of the OSDF Cell #4 liner. Construction of the OSDF Cell #4 liner includes: submittals and procurement, site preparation, clay liner, primary and secondary geosynthetic liners, primary and secondary drainage layers, construction of perimeter clay wedges and access ramps, catchment area, video inspection of HDPE pipe, horizontal monitoring wells #4 and #5, and close-out.

Construction of OSDF Cell #4 liner will be performed by the cell contractor.

- 1) Task #1 Submittals and Procurement
- 1.1) Subtask #1 Submittals
- 1.1)1 Plan/Scope Submittals
- Prepare work plans, technical submittals and the submittal register. Work plans and technical submittals will be prepared by the cell contractor. Work plans include surface water management and erosion control plan, earthwork work plan, fugitive dust control, safe work plan, traffic control plan, project specific health and safety plan and QA plan. The construction schedule for OSDF Cell #4 liner will be prepared by the cell contractor.
- 1.1)2 Quantification Submittals

Not applicable.

1.2) Subtask #2 - Procurement

1.2)1 Plan/Scope - Procurement

The following material will be procured by Fluor Fernald, Inc. for the OSDF Cell #4 liner:

Material: GCL, GML with welding rod, geotextile.

Equipment: None.

Labor: None

Subcontractor/Services: None.

1.2)2 Quantification - Procurement

Not applicable.

2) Task #2 - Site Preparation

Technical specification sections 02100, 02110, 02150, 02200, 02230, 02270, 02721

2.1) Plan/Scope - Site Preparation

- Mobilization, training, installation of SWM&EC, construction fence, verification of existing conditions (including field surveys), clearing and grubbing, access/haul roads, removal of topsoil, excavation, overexcavation, removal of existing utilities including drain tiles as shown on current (year 2001) utility drawings and subgrade preparation
- Survey subgrade and acceptance by Fluor Fernald
- Maintain subgrade until placement of first lift of clay liner
- Installation of gravity inlet structures and reinforced concrete pipe
- Dust control

2.2) Quantification - Site Preparation

The following are estimated quantities for the construction contractor:

- Installation of SWM&EC will require 2 laborers, 1 operator and a CAT 416 backhoe for 2 days. 1,100 lf of silt fence will be needed.
- Installation of the construction fence will require 2 laborers for 2 days and 1,000 lf of construction fence.
- Surveying of existing conditions will require 2 surveyors, one week (40 hours each)

- Construction of a portion of the OSDF haul road (approximately 440 If of road, adjacent and to the west of OSDF Cell 4) will be constructed of crushed stone and will require 1,000 cy of fill, 500 tons of #304 stone. Construction will take 5 days. Construction will require 2 Volvo 30-ton trucks, 1 waterwagon, 3 teamsters, 1 CAT 825 sheep's foot roller, 1 CAT 966 loader, 1 CAT D-6 bulldozer, 3 operators, and 2 laborers.
- Preparation of the construction area
- Removal of topsoil
- Excavation of liner #4 will be 4,000 cy and will take 10 days to complete.
 Required equipment and labor will be 1 water truck, 4 Volvo A-30 trucks,
 5 teamsters, 1 CAT D-6 bulldozer, 1 CAT D-8 bulldozer, 1 CAT 330 excavator,
 3 operators. Excavation will progress from east to west.
- Over-excavation of unsuitable material will be 2,000 cy and will take 5 days to complete. This activity will require 1 CAT 613 waterwagon, 4 Volvo A-30 trucks, 5 teamsters, 1 CAT D-8 LGP bulldozer, 1 CAT 330 excavator, 1 CAT 825 sheep's foot roller and 3 operators
- Removal of existing utilities is included with excavation.
- Removal of topsoil is included in other activities
- Surveying of the liner #4 subgrade will take 2 surveyors 2 days to complete
- Maintaining the liner #4 subgrade prior to placement of the clay liner will require
 2 laborers, 1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 1 operator and
 1 3" pump. Total duration will be 2 days.
- Installation of the gravity inlet structure and the reinforced concrete pipe will take
 5 days to complete. Installation will require 2 laborers, 1 CAT 330 excavator,
 1 operator, 60 If of 12" RCP and gravel material to bed and surround the RCP.
- 3) Task #3 Clay Liner

Technical specification section 02225

- 3.1) Plan/Scope Clay Liner
- Maintain the Borrow Area Haul Road

- Provide traffic control at intersection of Borrow Area Haul Road and North Entrance Road. Consists of installing stop signs and removing stop signs after completion of the clay wedge.
- Load clay liner material from OSDF Borrow Area stockpiles and haul to OSDF Cell #4
- Placement, compaction, maintenance and survey of the clay surface
- The clay liner will be overbuilt 0.1" to 0.3" to allow for possible desiccation cracking of the clay surface. Clay liner placement will progress from east to west. Approximately 0.1" to 0.2" of the excess material will be removed as installation of GCL progresses from east to west.
- Construction survey
- Dust control

3.2) Quantification - Clay Liner

Refer to table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon, 1 operator and 1 teamster. Because the work is intermittent (less than 2 hours per week during liner construction) labor and equipment will be used on an as needed basis and taken from the clay liner construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the clay liner activity.
- Traffic control at the intersection of the Borrow Area Haul Road and the North Entrance Road will require 1 laborer to install and remove stop signs, warning signs at the beginning and the end of the clay hauling activity. This activity will require 1 laborer for 8 hours.
- Loading of clay material from the Borrow Area stockpiles will require 1 CAT 330
 excavator and 1 operator. Hauling of the material will require 6 Volvo A-30 trucks
 and 6 teamsters. The activity will take 25 days to complete. Dust control will be
 performed by the CAT 613 waterwagon and the teamster covered by the Borrow
 Area Development (charge number CCPL2).
- Placement of the clay liner will require 1 CAT D8 low-ground pressure bulldozer, 1 CAT 825 sheep's foot roller, 1 CAT 563 smooth drum roller, 1 CAT SS250 soil stabilizer, 4 operators, 1 CAT 613 waterwagon, and 1 teamster, and 4 laborers.
 Of the four laborers 1 will act as a spotter, 1 will act as the grade checker, and

2 will perform rock picking from the clay liner. The CAT 613 waterwagon and teamster will also support stone delivery at the construction laydown area and other concurrent clean work. Clay liner construction will require 33,000 ICY of clay.

- Removal of excess clay will require 1 CAT D8 LGP bulldozer, 1 CAT 330 excavator, 1 CAT 563 smooth drum roller, 2.5 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon, and 3 teamsters. This activity will take 5 days.
- Survey of the finished clay surface will require 2 surveyors for 1 day.
- 4) Task #4 Primary and Secondary Geosynthetic Liners

Technical specification sections 02605, 02714, 02770 and 02772

- 4.1) Plan/Scope Primary and Secondary Geosynthetic Liners
- Receiving, unloading, inspecting, storing geosynthetic liner material (GCL, GML and geotextile), liner penetration boxes and HDPE pipe (solid wall and perforated). The geosynthetic material will be stored south of the OSDF Cell #4 liner area.
- Top of clay liner surface acceptance by the cell contractor, Fluor Fernald, GML specialty contractor, and CQC consultant
- Primary and secondary GCL, GML and geotextile placement and installation of 6 liner penetration boxes
- Hydro test penetration boxes and solid wall HDPE pipes between penetration boxes and valve house #4 for the leachate detection system, leachate collection system, and redundant leachate collection system
- Movement of the GCL, GML, and geotextile from the storage location to the OSDF Cell #4 liner and deployment of the material will be performed by the cell contractor. Deployment of the GCL, GML and geotextile will be from east to west.
- Panel layout, welding, seaming, tie-in of penetration boxes, non-destructive GML testing and repair of GML to be performed by the cell contractor. Sewing of geotextile to be performed by the cell contractor.
- Leak detection testing of primary GML will be performed by the cell contractor.

 Support labor provided by Fluor Fernald
 - Location survey of GML panels and seams will be performed by the cell contractor

- Trenching, placement of primary and secondary liner terminations, backfill and compaction around OSDF Cell #4 perimeter
- Construction survey
- Dust control

4.2) Quantification - Primary and Secondary Geosynthetic Liners

Refer to Tables 1.5.A and 1.5.B for material procurement and/placement quantities. The following are estimated quantities for the construction contractor:

- Receiving, unloading, inspecting and storing geosynthetic liner material will take 15 days over a period of two months. This activity will require 1 CAT TH83 forklift, 1 operator and 2 laborers.
- Acceptance of the top of clay liner will require 2 surveyors for 1 day.
- Placement of the 3 secondary penetration boxes on the west side of the liner will take 12 days to complete. This activity will require 1 CAT 330 excavator, 1 operator, 2 walk behind plate compactors, 2 laborers, and 2 pipefitters. This activity includes the excavation of the clay, installation and connection of the penetration boxes and hydro testing of the lines to valve house #4.
- Placement of the 3 primary penetration boxes on the west side of the liner will take 9 days to complete. This activity will require 1 posi-trac with bucket, 1 operator, 2 walk behind plate compactors, 2 laborers, and 2 pipefitters. This activity includes the excavation of the gravel, installation and connection of the penetration boxes and hydro testing of the lines to valve house #4.
- Deployment of the secondary GCL, GML and geotextile will take 15 days and will require 1 posi-trac, 1 CAT 563 smooth drum roller, 1 CAT TH83 forklift, 2.5 operators and 10 laborers. Movement of the GCL, GML and geotextile from the storage area will be performed concurrently with deployment of the material.
- Installation of the secondary liner includes panel layout, welding, seaming, tie-in of
 penetration boxes to the liners, non-destructive testing, repair of GML and sewing
 of geotextile will be performed by a specialty contractor. The contractor cost will
 include labor, material and equipment for this work.
- Deployment of the primary GCL, GML and geotextile will take 15 days and will require 1 posi-trac, 1 CAT TH83 forklift, 2.5 operators and 10 laborers. Movement of the GCL, GML and geotextile from the storage area will be performed concurrently with deployment of the material.

- Installation of the primary liner includes panel layout, welding, seaming, tie-in of penetration boxes to the liners, non-destructive testing, repair of GML and sewing of geotextile which will be performed by the cell contractor. The contractor cost will include labor, material and equipment for this work.
- Leak detection testing of the primary GML will be performed by the cell contractor and will take 5 days. This activity will require 1 posi-trac, 1 operator, 2 laborers and a 2" gas powered pump.
- Placement of geotextile will be by the cell contractor. This activity will take 5 days and require 1 posi-trac, 1 CAT TH83 forklift, 2 operators and 6 laborers. The sewing of the geotextile will be by the cell contractor.
- Location survey of the GML panels and seams will require 2 surveyors for one day.
- Trenching and placement of the secondary and primary liner terminations around the perimeter will take 5 days and require a CAT 330 excavator, 1 operator, 1 walk behind compactor and 2 laborers.

5) Task #5 - Primary and Secondary Drainage Layers

Technical specification section 02605 and 02710

5.1) Plan/Scope - Primary and Secondary Drainage Layers

- Receiving, stockpiling and inspecting the #78 and #57 stone will occur south of OSDF liner #4. There will be two periods of stockpiling stone – 1 for the secondary and 1 for the primary.
- Placing drainage layer, installation of perforated HDPE pipe, and rolling and surveying of drainage layer surfaces
- Construction survey
- Dust control

5.2) Quantification - Primary and Secondary Drainage Layers

Refer to table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

 Receiving, stockpiling and inspection of the #78 and #57 stone for the secondary layer will take 20 days and will require 1 CAT D8 LGP bulldozer, 1 operator and 1 laborer to act as a spotter

- Placement of the #78 and #57 stone and the perforated drainage pipe for the secondary layer will take 10 days. This activity will require 2 CAT D6 bulldozers, 1 CAT 966 loader, 1 CAT 563 smooth drum roller, 3 operators, 3 Volvo A-30 trucks, 3 teamsters, 2 pipefitters and 4 laborers. Of the 4 laborers, 1 will act as a spotter, 1 will act as a grade checker, 2 will work on grading of the stone. Handling of the pipe will be shared by these laborers.
- Receiving, stockpiling and inspection of the #78 and #57 stone for the primary layer will take 20 days and will require 1 CAT D8 LGP bulldozer, 1 operator and 1 laborer to act as a spotter
- Dust control will require 1 CAT 613 waterwagon (for 10 days) and 0.5 teamster.
- 6) Task #6 Construction of Perimeter Clay Wedges and Access Ramp
- 6.1) Plan/Scope Construction of Perimeter Clay Wedges and Access Ramp
- Traffic control at intersection of Borrow Area Haul Road and North Entrance Road is covered under Task 3 of this charge number.
- Load from OSDF Borrow Area stockpiles and haul to OSDF Cell #4 perimeter clay wedges
- Placement, compaction, maintenance and survey of the OSDF Cell #4 perimeter clay wedges
- Placement of sacrificial geomembrane
- Construction of OSDF Cell #4 access ramp
- Construction survey
- Dust control
- 6.2) Quantification Construction of Perimeter Clay Wedges and Access Ramp

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

Loading, hauling, placement and compaction of clay material for OSDF Cell #4 perimeter wedges will take 10 days and require 1 CAT 330 excavator, 1 CAT 825 sheep's foot roller, 1 CAT D6 bulldozer, 2.5 operators, 4 Volvo A-30 trucks, 1 CAT 613 waterwagon, 5 teamsters and 2 laborers. This activity will also require 2 surveyors for 1 day.

- Placement of the sacrificial geomembrane will take 2 days and will require
 4 laborers
- Construction of the OSDF Cell #4 Access Ramp will take 3 days and will require 1 CAT D6 bulldozer, 1 CAT 966 loader, 2 operators, 3 Volvo A-30 trucks, 3 teamsters, and 1 laborer. This activity will also require one water truck for 1.5 days and one teamster for 1.5 days.
- This activity will require 2 surveyors for 1 day

7) Task #7 - Catchment Area

Technical specification sections 02710 and 02714

7.1) Plan/Scope - Catchment Area

- Place and survey non-impacted granular layer and geotextile in the catchment area
- Construction survey

7.2) Quantification - Catchment Area

The following are estimated quantities for the construction contractor:

- Placement of the non-impacted granular layer and geotextile in the catchment area will require 1 CAT D6 LGP bulldozer, 1 operator, 2 Volvo A-30 trucks, 2 teamsters and 4 laborers.
- 8) Task #8 Video Inspection of HDPE Pipe

Technical specification section 02605

8.1) Plan/Scope - Video Inspection of HDPE Pipe

- Video inspection of solid wall HDPE pipes for leachate detection system, leachate collection system, and redundant leachate collection system will be performed by a specialty contractor
- This activity covers the initial videotaping of leachate lines between valve houses and inlet boxes in Cell 4.

8.2) Quantification - Video Inspection of HDPE Pipe

The following are estimated quantities for the construction contractor:

Video inspection will take a specialty contractor 1 day with 2 technicians.

- 9) Task #9 Horizontal Monitoring Wells (HMW) #4 and #5
- 9.1) Plan/Scope Horizontal Monitoring Wells (HMW) #4 and #5
- Horizontal monitoring wells must be installed and operating a minimum of 12 months prior to placement of the 12" impacted protective layer in OSDF Cell liners #4 and #5.
- Receive, store, inspect HDPE pipe (perforated and solid), geotextile and drainage material
- Place/install HDPE pipe, geotextile, and drainage layer
- Tie-in with HDPE pipe outside Valve House #4, Valve House #5 and perform hydro testing the solid wall HDPE pipes for leachate detection system, leachate collection system, and redundant leachate collection system.
- Construction survey
- Dust control
- 9.2) Quantification Horizontal Monitoring Wells (HMW) #4 and #5

The following are estimated quantities for the construction contractor:

OSDF Liner #4 HMW

- Receive, store and inspect HDPE pipe (perforated and solid), geotextile and drainage material for OSDF Cell #4 horizontal monitoring wells will take ½ of one day and require 2 laborers and 1 operator.
- Placement/ installation of the HDPE pipe, geotextile material an drainage layer stone for OSDF Cell #4 horizontal monitoring wells will take 6 weeks and require 1 CAT 330 excavator, 1 CAT D6 bulldozer (4 weeks), 1 CAT 825 sheep's foot roller (2 weeks), 2.5 operators, 1 laborer, and 2 pipefitters. This activity will require 2 surveyors 1 day.
- Tie-in of the HDPE pipe to stub-outs from valve houses #4 will take 2 days and require 2 pipefitters (backfill is included in the placement task)
- Dust control will require 1 CAT 613 waterwagon and one teamster for ½ of the time

OSDF Cell #5 HMW

- Receive, store and inspect HDPE pipe (perforated and solid), geotextile and drainage material for OSDF Cell #5 horizontal monitoring wells will take ½ of one day and require 2 laborers and 1 operator.
- Placement/ installation of the HDPE pipe, geotextile material an drainage layer stone for OSDF Cell #5 horizontal monitoring wells will take 6 weeks and require 1 CAT 330 excavator, 1 CAT D6 bulldozer (4 weeks), 1 CAT 825 sheep's foot roller (2 weeks), 2.5 operators, 1 laborer, and 2 pipefitters. This activity will require 2 surveyors 1 day.
- Tie-in of the HDPE pipe to stub-outs from valve houses #5 will take 2 days and require 2 pipefitters (backfill is included in the placement task)
- Dust control will require 1 CAT 613 waterwagon and one teamster for ½ of the time
- 10) Task #10 Closeout
- 10.1) Plan/Scope Closeout
- Completion of project punchlist
- Final survey and redlines
- Demobilization
- 10.2) Quantification Closeout

Not applicable

1.5.8 CCPLD - OSDF Cell #4 Cap

The scope of work for this charge number is the construction of the OSDF Cell #4 cap which includes: submittals and procurement, site preparation, contouring layer, clay cap, geosynthetic cap, drainage layer, biointrusion barrier with choking layer, filter layer, vegetative layer, topsoil, vegetation and close-out.

R1 – D-554 Construction of Cell #4 cap will be performed by Fluor Fernald, Inc. (self-performed) with the exception of the following activities: GML installation—panel layout, welding, seaming, testing and repair of GML, sewing of geotextile and leak detection testing of GML. Specialty contractors will perform these activities the cell contractor.

1) Task #1 - Submittals and Procurement

1.1) Subtask #1 - Submittals

1.1)1 Plan/Scope - Submittals

Prepare work plans, technical submittals and the submittal register. Work plans and technical submittals will be prepared by the cell contractor. Work plans include surface water management and erosion control plan, earthwork work plan, fugitive dust control, safe work plan, traffic control plan, project specific health and safety plan and QA plan. The construction schedule for Cell #4 cap will be prepared by the cell contractor.

1.1)2 Quantification - Submittals

1.2) Subtask #2 - Procurement

1.2)1 Plan/Scope - Procurement

 The following material will be procured by Fluor Fernald, Inc. for the OSDF Cell #4 cap:

Material: GCL, GML with welding rod, geotextile.

Equipment: None.

Labor: None

Subcontractor/Services: None.

1.2)2 Quantification - Procurement

Not applicable

2) Task #2 - Site Preparation

Technical specification sections 02100, 02110, 02150, 02200, 02230, 02270, 02721)

2.1) Plan/Scope - Site Preparation

- Mobilization of equipment, perform safety checks, training, installation of surface water management and erosion controls, construction fence, verification of existing conditions (including field surveys), clearing and grubbing, excavation, and culvert installation
- Construction of an access/service road on the west side of the OSDF. This activity
 will require fill and gravel surfacing. The gravel will be delivered to the site from
 outside suppliers.

- Rework the drainage ditch on the west side of Cell #4
- Excavation of the sacrificial clay wedges and removal of 20 foot wide x 400 foot long OSDF haul road from the west side of the OSDF. Placement of impacted material into the OSDF from road removal is covered by CCPL3. Stockpiling of nonimpacted material from road removal is covered under this charge number
- Dust control

2.2) Quantification - Site Preparation

The following are estimated quantities for the construction contractor:

- Mobilization of equipment will take 2 weeks and require 1 mechanic, and 1 superintendent
- Training, all labor must receive on-site training
- Relocation of Rad fencing will take 1 week and will require 2 laborers and 1,600 lf of fencing
- Construction of the access road/ service road on the west side of the OSDF will require 600 cy of fill. This activity will take 2 days and will require 1 CAT D6 bulldozer, 1 CAT 825 sheep's foot roller, 2 operators, 3 Volvo A-30 truck, 1 CAT 613 waterwagon (for 1 day for dust control), 3.5 teamsters and 1 laborer. This activity will require placement of 500 tons of #304 stone for the service road.
- Placement of the #304 stone for the access road/ service road will take 1 day and will require 5,200 CY of stone, 1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 2 operators, 1 CAT 613 waterwagon (for ½ day for dust control), 1 teamster (for ½ day) and 1 laborer.
- Rework of the 400 ft long V-drainage ditch on the west side of Cell #4 will take 3 days and will require 2,000 cy of fill, 1 CAT 330 excavator, 1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 2 operators, 3 Volvo A-30 trucks, 1 CAT 613 waterwagon (for .75 days), 3.25 operators and 1 laborer. Placement of riprap in the ditch will take 2 days and will require 300 tons of type "D" riprap, 1 CAT 330 excavator, 1 CAT D6 bulldozer, 2 operators and 2 laborers.
- Removal of the 20 foot wide x 400 foot long OSDF haul road from the west side of the OSDF and excavation of sacrificial clay wedge will take 5 days and will require 1 CAT D6 LGP bulldozer, 1 CAT 330 excavator, 2 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), 2.5 teamsters and 1 laborer

3) Task #3 - Contouring Layer

Technical specification 02240

3.1) Plan/Scope - Contouring Layer

- Remove existing silt fence (two rows) from select impacted material layer
- Survey and verify top of the existing select impacted material layer
- Grade, recompact top of select layer
- Construct access ramp with non-impacted contouring layer material
- Place non-impacted material contouring layer
- Survey and verify non-impacted material contouring layer
- Surface water management and erosion control
- Dust control

3.2) Quantification - Contouring Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Removal of existing silt fence (two rows) from select impacted material layer will take 1 day and will require 1 CAT 416 Backhoe, 1 operator and 2 laborers.
- Surveying and verification of the top of the existing select impacted material layer will take 1 day and will require 2 surveyors.
- Grading and recompacting the top of the select layer will take 5 days and will require1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 2 operators, 1 CAT 613 waterwagon (for dust control), 1 teamster and 2 laborers.
- Construction of the access ramp will take 2 days and will require 1 CAT 330 excavator, 1 CAT D6 LGP bulldozer, 1 CAT 825 sheep's foot roller, 3 operators, 6 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 1 day for dust control), 6.5 teamsters, and 1 laborer
- Placement of the non-impacted material contouring layer will take 10 days and will require 1 CAT 330 excavator, 1 CAT D6 LGP bulldozer, 1 CAT 825 sheep's foot roller (for 5 days), 2.5 operators, 6 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 5 days for dust control), 6.5 teamsters and 2 laborers.
- Survey and verification of the top of the contouring layer will take 1 day and will require 2 surveyors for 1 day.

4) Task #4 - Clay Cap

Technical specification section 02225

4.1) Plan/Scope_- Clay Cap

- Maintain the Borrow Area Haul Road
- Provide traffic control at intersection of Borrow Area Haul Road and North Entrance Road. This activity consists of installing stop signs and removing stop signs after completion of hauling of the material from the Borrow Area.
- Excavate, load and haul clay cap material from OSDF Borrow Area stockpiles and haul to OSDF Cell #4 cap
- Placement, compaction, maintenance and survey of the clay surface. The clay cap
 will be overbuilt 0.1" to 0.3" to allow for possible desiccation cracking of the clay
 surface. Approximately 0.1" to 0.2" of the excess material will be removed as
 installation of GCL progresses from east to west.
- Construction survey
- Dust control

4.2) Quantification - Clay Cap

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Excavation, loading and hauling of the clay from the Borrow Area stockpiles will take 20 days and will require 1 CAT 330 excavator, 1 operator, 6 Volvo A-30 trucks and 6 teamsters
- Placement, compaction of 18,000 ICY of clay will take 20 days and will require 1 CAT D6 LGP bulldozer, 1 CAT SS250 soil stabilizer, 1 CAT 563 smooth drum roller, 1 CAT 825 sheep's foot roller, 3.5 operators, 1 CAT 613 waterwagon (for dust control), 1 teamster, and 3 laborers
- Removal of excess clay will require 1 CAT D8 LGP bulldozer, 1 CAT 330 excavator, 1 CAT 563 smooth drum roller, 2.5 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), and 3 teamsters. This activity will take 5 days.
- Survey of the finished clay surface will require 2 surveyors for 1 day.

5) Task #5 - Geosynthetic Cap

Technical specification sections 02714, 02770 and 02772

5.1) Plan/Scope - Geosynthetic Cap

- Receiving, unloading, inspecting, storing geosynthetic cap materials (GCL, GML and geotextile)
- Top of clay liner surface acceptance by Fluor Fernald, GML specialty contractor, and CQC consultant
- GCL, GML and geotextile deployment
- Panel layout, welding, seaming, non-destructive GML testing and repair of GML to be performed by the cell contractor. Sewing of geotextile to be performed by the cell contractor. Movement of the GCL, GML and geotextile from the storage area will be performed concurrently with deployment of the material.
- Leak detection testing of GML by specialty contractor.
- Location survey of GML panels and seams will be performed by the cell contractor
- Construction survey
- Dust control

5.2) Quantification - Geosynthetic Cap

Refer to Tables 1.5.A and 1.5.B for material procurement and/placement quantities. The following are estimated quantities for the construction contractor:

- Receiving, unloading, inspecting and storing geosynthetic liner material will take
 8 days over a period of one month. This activity will require 1 CAT TH83 forklift,
 1 operator and 2 laborers.
- Acceptance of the top of clay liner will require 2 surveyors for 1 day.
- Deployment of the GCL, GML and geotextile will take 17 days and will require 1 posi-trac, 1 CAT 563 smooth drum roller, 1 CAT TH83 forklift, 2.5 operators and 10 laborers. Installation of the liner includes panel layout, welding, seaming, non-destructive testing, repair of GML and sewing of geotextile.

- Leak detection testing of the GML will be performed by the cell contractor and will take 5 days. This activity will require 1 posi-trac, 1 operator, 2 laborers and a 2" gas powered pump.
- Placement of geotextile will be by the cell contractor. This activity will take 5 days and require 1 posi-trac, 1 CAT TH83 forklift, 2 operators and 6 laborers. The sewing of the geotextile will be by the cell contractor.
- Location survey of the GML panels and seams will require 2 surveyors for one day.

6) Task #6 - Drainage Layer

Technical specification section 02710

6.1) Plan/Scope - Drainage Layer

- Receiving, stockpiling and inspecting the #78 stone will occur west of OSDF Cell #4.
- Placing drainage layer, rolling and surveying of drainage layer surface
- Construction survey
- Dust control

6.2) Quantification - Drainage Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Receiving, stockpiling and inspection of 30,000 tons of #78 stone for the drainage layer will take 25 days and will require 1 CAT D8 LGP bulldozer, 1 operator and 1 laborer to act as a spotter.
- Placement of the #78 stone will take 20 days. This activity will require 2 CAT D6 bulldozers, 1 CAT 966 loader, 1 CAT 563 smooth drum roller, 3 operators, 4 Volvo A-30 trucks, 4 teamsters, and 2 laborers.
- Construction survey will require 2 surveyors for 1 day.
- Dust control for receiving and placement will require 1 CAT 613 waterwagon (for 11 days) and 0.5 teamster.

7) Task #7 - Biointrusion Barrier

Technical specification section 02280

7.1) Plan/Scope - Biointrusion Barrier

- Receiving, unloading, inspecting and storing biointrusion barrier and choke stone materials
- Survey and verify top of drainage layer elevation prior to placement of biointrusion barrier.
- Place biointrusion barrier and choke stone
- Dust control

7.2) Quantification - Biointrusion Barrier

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Receiving, stockpiling and inspection of 57,000 tons of riprap for the biointrusion barrier and 4,500 tons of choke stone will take 40 days and will require 1 CAT D8 LGP bulldozer, 1 operator, 1 CAT 613 waterwagon (for 10 days for dust control), 0.25 teamster, and 1 laborer to act as a spotter.
- Verification and survey of the top of the drainage layer will take 1 day and will require 2 surveyors.
- Placement of the riprap and choke stone will take 30 days. This activity will require 2 CAT D8 LGP bulldozers, 1 CAT 966 loader, 1 CAT 330 excavator, 1 CAT 563 smooth drum roller, 4.5 operators, 4 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), 4.5 teamsters, and 2 laborers.

8) Task #8 - Filter Layer

Technical specification section 02712

8.1) Plan/Scope - Filter Layer

- Receive and stockpile filter layer material (sand) from off site supplier.
- Survey and verify top of biointrusion barrier elevation prior to placement of filter layer.

- Loading, hauling, and placement of the filter layer material
- Dust control

8.2) Quantification - Filter Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Receiving and stockpiling 12,000 tons of filter layer material will take 12 days and will require 1 CAT D8 bulldozer, 1 operator, 1 CAT 613 waterwagon (for 3 days for dust control), 0.25 teamster and 1 laborer.
- Survey of the biointrusion barrier will take 1 day and will require 2 surveyors.
- Loading, hauling, and placement of the filter layer material will take 10 days and will require 1 CAT D6 LGP bulldozer, 1 CAT 966 loader, 2 operators, 4 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 3 days), 4.25 teamsters, and 1 laborer.

9) Task #9 - Vegetative Layer

Technical specification section 02930

- 9.1) Plan/Scope Vegetative Layer
- Maintain the Borrow Area Haul Road
- Survey and verify top of filter layer elevation prior to placement of the vegetative layer.
- Load vegetative layer material from OSDF Borrow Area stockpiles and haul to OSDF
 Cell #4
- Placement of the vegetative layer
- Dust control

9.2) Quantification - Vegetative Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

 Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon (for dust control), 1 operator and 1 teamster.
 Because the work is intermittent (less than 2 hours per week during cap construction) labor and equipment will be used on an as needed basis and taken from the vegetative layer construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the vegetative layer activity.

- Survey of the top of filter layer elevation will require 2 surveyors for 1 day.
- Loading of vegetative layer material from the Borrow Area stockpiles will require
 1 CAT 330 excavator and 1 operator. Hauling of the material will require 6 Volvo
 A-30 trucks and 6 teamsters. The activity will take 20 days to complete. Dust
 control will be performed by the CAT 613 waterwagon and the teamster covered
 by the Borrow Area Development (charge number CCPL2).
- Placement of the vegetative layer will take 20 days to complete and will require
 1 CAT D6 low-ground pressure bulldozers, 1 CAT 825 sheep's foot roller, 1 CAT
 563 smooth drum roller, 4 operators, 1 CAT 613 waterwagon, and 1 teamster, and
 3 laborers.

10) Task #10 - Topsoil Layer

Technical specification section 02920)

10.1) Plan/Scope - Topsoil Layer

- Maintain the Borrow Area Haul Road
- Survey and verify top of vegetative layer elevation prior to placement of the topsoil layer.
- Load topsoil layer material from OSDF Borrow Area stockpiles and haul to OSDF
 Cell #4
- Placement of the topsoil layer
- Dust control

10.2) Quantification - Topsoil Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon (for dust control), 1 operator and 1 teamster. Because the work is intermittent (less than 2 hours per week during liner construction) labor and equipment will be used on an as needed basis and taken

from the topsoil layer construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the topsoil layer activity.

- Survey of the top of vegetative layer elevation will require 2 surveyors for 1 day.
- Loading of topsoil layer material from the Borrow Area stockpiles will require 1 CAT 330 excavator and 1 operator. Hauling of the material will require 6 Volvo A-30 trucks and 6 teamsters. The activity will take 2 days to complete. Dust control will be performed by the CAT 613 waterwagon (for dust control) and the teamster covered by the Borrow Area Development (charge number CCPL2).
- Placement of the topsoil layer will require 1 CAT D6 low-ground pressure bulldozers, 1 CAT 825 sheep's foot roller, 1 CAT 563 smooth drum roller, 4 operators, 1 CAT 613 waterwagon (for dust control), and 1 teamster, and 3 laborers.

11) Task #11 - Permanent Vegetation

Technical specification section 02930

11.1) Plan/Scope - Permanent Vegetation

 Plant permanent vegetation on the Cell #4 final cover including seeding and erosion mat.

11.2) Quantification - Permanent Vegetation

Permanent vegetation and installation of erosion mat will take 15 days and will require 1 CAT D6 bulldozer, 1 farm tractor with disc, 1 mechanical seed drill, 1 operator, 1 CAT 613 waterwagon (for dust control), 1 teamster, and 5 laborers. Cell #4 final cover surface that will require permanent vegetation is 7.25 acres

12) Task #12 - Closeout

12.1) Plan/Scope - Closeout

- Completion of project punchlist
- Final survey and redlines
- Demobilization

12.2) Quantification - Closeout

Not applicable.

1.5.9 CCPLE - OSDF Cell #5 Liner

The scope of work for this charge number is the construction of the OSDF Cell #5 liner. Construction of the OSDF Cell #5 liner includes: submittals and procurement, site preparation, clay liner, primary and secondary geosynthetic liners, primary and secondary drainage layers, construction of perimeter clay wedges and access ramps, catchment area, video inspection of HDPE pipe, horizontal monitoring wells #6, and close-out.

Construction of OSDF Cell #5 liner will be performed by the cell contractor.

- 1) Task #1 Submittals and Procurement
- 1.1) Subtask #1 Submittals

1.1)1 Scope - Submittals

Prepare work plans, technical submittals and the submittal register. Work plans and technical submittals will be prepared by the cell contractor. Work plans include surface water management and erosion control plan, earthwork work plan, fugitive dust control, safe work plan, traffic control plan, project specific health and safety plan and QA plan. The construction schedule for OSDF Cell #5 liner will be prepared by the cell contractor.

1.1)2 Quantification - Submittals

Not applicable

1.2) Subtask #2 - Procurement

1.2)1 Plan/Scope - Procurement

The following material will be procured by Fluor Fernald, Inc. for the OSDF Cell #5 liner:

Material: GCL, GML with welding rod, geotextile.

Equipment: None.

Labor: None

Subcontractor/Services: None.

1.2)2 Quantification - Procurement

Not applicable.

2) Task #2 - Site Preparation

Technical specification sections 02100, 02110, 02150, 02200, 02230, 02270, 02721

2.1) Plan/Scope - Site Preparation

- Mobilization, training, installation of SWM&EC, construction fence, verification of existing conditions (including field surveys), clearing and grubbing, access/haul roads, removal of topsoil, excavation, overexcavation, removal of existing utilities including drain tiles as shown on current (year 2001) utility drawings and subgrade preparation
- Remove the north entrance road transition south of OSDF Cell #5
- Remove the chain link fence south of OSDF Cell #5
- Install chain link fence east of the OSDF from Cell #5 south to Cell #8 and south of Cell #8
- Fill the north 1/3 of OSDF sediment basin #1 and reroute associated drainage ditches
- Survey subgrade and acceptance by Fluor Fernald
- Maintain subgrade until placement of first lift of clay liner
- Installation of gravity inlet structures and reinforced concrete pipe
- Dust control

2.2) Quantification - Site Preparation

The following are estimated quantities for the construction contractor:

- Installation of SWM&EC will require 2 laborers, 1 operator and a CAT 416 backhoe for 2 days. 1,100 lf of silt fence will be needed.
- Installation of the construction fence will require 2 laborers for 2 days and 1,000 lf of construction fence.
- Removal of north entrance road transition south of OSDF Cell #5 will take 5 days and will require removal of approximately 2,600 cy of material, 1 CAT D6 bulldozer, 1 CAT 330 excavator, 2 operators, 3 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 1.25 days), 3.25 teamsters and 1 laborer
- Removal of 1,500 ft of chain link fence south of OSDF Cell #5 will take 3 days and will require 1 CAT 416 backhoe, 1 operator and 4 laborers

- Installation of 2,400 ft of chain link fence and 2 gates will take 10 days, and require 1 Bobcat with auger attachment, 2 ironworkers and 3 laborers
- Fill the north 1/3 of OSDF sediment basin #1 and reroute associated drainage ditches will take 8 days and will require 10,000 cy of fill from the Borrow Area, 1 CAT 330 excavator, 1 CAT D6 bulldozer, 1 CAT 825 sheep's foot roller, 2.5 operators, 4 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 4 days), 4.5 teamsters and 1 laborer.
- Surveying of existing conditions will require 2 surveyors, one week (40 hours each)
- Construction of a portion of the OSDF haul road (approximately 440 If of road, adjacent and to the west of OSDF Cell 5) will be constructed of crushed stone and will require 1,000 cy of fill, 500 tons of #304 stone. Construction will take 5 days. Construction will require 2 Volvo 30-ton trucks, 1 waterwagon, 3 teamsters, 1 CAT 825 sheep's foot roller, 1 CAT 966 loader, 1 CAT D-6 bulldozer, 3 operators, and 2 laborers.
- Preparation of the construction area
- Excavation of liner #5 will be 4,000 cy and will take 10 days to complete.
 Required equipment and labor will be 1 water truck, 4 Volvo A-30 trucks,
 5 teamsters, 1 CAT D-6 bulldozer, 1 CAT D-8 bulldozer, 1 CAT 330 excavator,
 3 operators. Excavation will progress from east to west.
- Over-excavation of unsuitable material will be 2,000 cy and will take 5 days to complete. This activity will require 1 CAT 613 waterwagon, 4 Volvo A-30 trucks, 5 teamsters, 1 CAT D-8 LGP bulldozer, 1 CAT 330 excavator, 1 CAT 825 sheep's foot roller and 3 operators
- Removal of existing utilities is included with excavation.
- Removal of topsoil is included in other activities
- Surveying of the liner #5 subgrade will take 2 surveyors 2 days to complete
- Maintaining the liner #5 subgrade prior to placement of the clay liner will require
 2 laborers, 1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 1 operator and
 1 3" pump. Total duration will be 2 days.
- Installation of the gravity inlet structure and the reinforced concrete pipe will take
 5 days to complete. Installation will require 2 laborers, 1 CAT 330 excavator,
 1 operator, 60 If of 12" RCP and gravel material to bed and surround the RCP.

3) Task #3 - Clay Liner

Technical specification section 02225

3.1) Plan/Scope - Clay Liner

- Maintain the Borrow Area Haul Road
- Provide traffic control at intersection of Borrow Area Haul Road and North Entrance Road. Consists of installing stop signs and removing stop signs after completion of the clay wedge.
- Load clay liner material from OSDF Borrow Area stockpiles and haul to OSDF Cell #5
- Placement, compaction, maintenance and survey of the clay surface
- The clay liner will be overbuilt 0.1" to 0.3" to allow for possible desiccation cracking of the clay surface. Clay liner placement will progress from east to west.
 Approximately 0.1" to 0.2" of the excess material will be removed as installation of GCL progresses from east to west.
- Construction survey
- Dust control

3.2) Quantification - Clay Liner

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon, 1 operator and 1 teamster. Because the work is intermittent (less than 2 hours per week during liner construction) labor and equipment will be used on an as needed basis and taken from the clay liner construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the clay liner activity.
- Traffic control at the intersection of the Borrow Area Haul Road and the North Entrance Road will require 1 laborer to install and remove stop signs, warning signs at the beginning and the end of the clay hauling activity. This activity will require 1 laborer for 8 hours.
- Loading of clay material from the Borrow Area stockpiles will require 1 CAT 330 excavator and 1 operator. Hauling of the material will require 6 Volvo A-30 trucks

and 6 teamsters. The activity will take 25 days to complete. Dust control will be performed by the CAT 613 waterwagon and the teamster covered by the Borrow Area Development (charge number CCPL2).

- Placement of the clay liner will require 1 CAT D8 low-ground pressure bulldozer, 1 CAT 825 sheep's foot roller, 1 CAT 563 smooth drum roller, 1 CAT SS250 soil stabilizer, 4 operators, 1 CAT 613 waterwagon, and 1 teamster, and 4 laborers. Of the four laborers 1 will act as a spotter, 1 will act as the grade checker, and 2 will perform rock picking from the clay liner. The CAT 613 waterwagon and teamster will also support stone delivery at the construction laydown area and other concurrent clean work. Clay liner construction will require 33,000 ICY of clay.
- Removal of excess clay will require 1 CAT D8 LGP bulldozer, 1 CAT 330 excavator, 1 CAT 563 smooth drum roller, 2.5 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon, and 3 teamsters. This activity will take 5 days.
- Survey of the finished clay surface will require 2 surveyors for 1 day.
- 4) Task #4 Primary and Secondary Geosynthetic Liners

Technical specification sections 02605, 02714, 02770 and 02772

- 4.1) Plan/Scope Primary and Secondary Geosynthetic Liners
- Receiving, unloading, inspecting, storing geosynthetic liner material (GCL, GML and geotextile), liner penetration boxes and HDPE pipe (solid wall and perforated). The geosynthetic material will be stored south of the OSDF Cell #5 liner area.
- Top of clay liner surface acceptance by the cell contractor, Fluor Fernald, GML specialty contractor, and CQC consultant
- Primary and secondary GCL, GML and geotextile placement and installation of 6 liner penetration boxes
- Hydro test penetration boxes and solid wall HDPE pipes between penetration boxes and valve house #4 for the leachate detection system, leachate collection system, and redundant leachate collection system
- Movement of the GCL, GML, and geotextile from the storage location to the OSDF Cell #5 liner and deployment of the material will be performed by the cell contractor. Deployment of the GCL, GML and geotextile will be from east to west.

- Panel layout, welding, seaming, tie-in of penetration boxes, non-destructive GML testing and repair of GML to be performed by the cell contractor. Sewing of geotextile to be performed by the cell contractor.
- Leak detection testing of primary GML will be performed by the cell contractor
- Location survey of GML panels and seams will be performed by the cell contractor
- Trenching, placement of primary and secondary liner terminations, backfill and compaction around OSDF Cell #5 perimeter
- Construction survey
- Dust control

4.2) Quantification - Primary and Secondary Geosynthetic Liners

Refer to Tables 1.5.A and 1.5.B for material procurement and/placement quantities. The following are estimated quantities for the construction contractor:

- Receiving, unloading, inspecting and storing geosynthetic liner material will take 15 days over a period of two months. This activity will require 1 CAT TH83 forklift, 1 operator and 2 laborers.
- Acceptance of the top of clay liner will require 2 surveyors for 1 day.
- Placement of the 3 secondary penetration boxes on the west side of the liner will take 12 days to complete. This activity will require 1 CAT 330 excavator, 1 operator, 2 walk behind plate compactors, 2 laborers, and 2 pipefitters. This activity includes the excavation of the clay, installation and connection of the penetration boxes and hydro testing of the lines to valve house #4.
- Placement of the 3 primary penetration boxes on the west side of the liner will take 9 days to complete. This activity will require 1 posi-trac with bucket, 1 operator, 2 walk behind plate compactors, 2 laborers, and 2 pipefitters. This activity includes the excavation of the gravel, installation and connection of the penetration boxes and hydro testing of the lines to valve house #4.
- Deployment of the secondary GCL, GML and geotextile will take 15 days and will require 1 posi-trac, 1 CAT 563 smooth drum roller, 1 CAT TH83 forklift,
 2.5 operators and 10 laborers. Movement of the GCL, GML and geotextile from the storage area will be performed concurrently with deployment of the material.
- Installation of the secondary liner includes panel layout, welding, seaming, tie-in of penetration boxes to the liners, non-destructive testing, repair of GML and sewing

of geotextile will be performed by a specialty contractor. The contractor cost will include labor, material and equipment for this work.

- Deployment of the primary GCL, GML and geotextile will take 15 days and will require 1 posi-trac, 1 CAT TH83 forklift, 2.5 operators and 10 laborers. Movement of the GCL, GML and geotextile from the storage area will be performed concurrently with deployment of the material.
- Installation of the primary liner includes panel layout, welding, seaming, tie-in of
 penetration boxes to the liners, non-destructive testing, repair of GML and sewing
 of geotextile which will be performed by the cell contractor. The contractor cost
 will include labor, material and equipment for this work.
- Leak detection testing of the primary GML will be performed by the cell contractor and will take 5 days. This activity will require 1 posi-trac, 1 operator, 2 laborers and a 2" gas powered pump.
- Placement of geotextile will be by Fluor Fernald. This activity will take 5 days and require 1 posi-trac, 1 CAT TH83 forklift, 2 operators and 6 laborers. The sewing of the geotextile will be by the cell contractor.
- Location survey of the GML panels and seams will require 2 surveyors for one day.
- Trenching and placement of the secondary and primary liner terminations around the perimeter will take 5 days and require a CAT 330 excavator, 1 operator, 1 walk behind compactor and 2 laborers.

5) Task #5 - Primary and Secondary Drainage Layers

Technical specification section 02605 and 02710

5.1) Plan/Scope - Primary and Secondary Drainage Layers

- Receiving, stockpiling and inspecting the #78 and #57 stone will occur south of OSDF liner #5. There will be two periods of stockpiling stone – 1 for the secondary and 1 for the primary.
- Placing drainage layer, installation of perforated HDPE pipe, and rolling and surveying of drainage layer surfaces
- Construction survey
- Dust control

5.2) Quantification - Primary and Secondary Drainage Layers

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Receiving, stockpiling and inspection of the #78 and #57 stone for the secondary layer will take 20 days and will require 1 CAT D8 LGP bulldozer, 1 operator and 1 laborer to act as a spotter
- Placement of the #78 and #57 stone and the perforated drainage pipe for the secondary layer will take 10 days. This activity will require 2 CAT D6 bulldozers, 1 CAT 966 loader, 1 CAT 563 smooth drum roller, 3 operators, 3 Volvo A-30 trucks, 3 teamsters, 2 pipefitters and 4 laborers. Of the 4 laborers, 1 will act as a spotter, 1 will act as a grade checker, 2 will work on grading of the stone. Handling of the pipe will be shared by these laborers.
- Receiving, stockpiling and inspection of the #78 and #57 stone for the primary layer will take 20 days and will require 1 CAT D8 LGP bulldozer, 1 operator and 1 laborer to act as a spotter
- Dust control will require 1 CAT 613 waterwagon (for 10 days) and 0.5 teamster.
- 6) Task #6 Construction of Perimeter Clay Wedges and Access Ramp
- 6.1) Plan/Scope Construction of Perimeter Clay Wedges and Access Ramp
- Traffic control at intersection of Borrow Area Haul Road and North Entrance Road is covered under Task 3 of this charge number.
- Load from OSDF Borrow Area stockpiles and haul to OSDF Cell #5 perimeter clay wedges
- Placement, compaction, maintenance and survey of the OSDF Cell #5 perimeter clay wedges
- Placement of sacrificial geomembrane
- Construction of OSDF Cell #5 access ramp
- Construction survey
- Dust control

6.2) Plan/Scope - Construction of Perimeter Clay Wedges and Access Ramp

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Loading, hauling, placement and compaction of clay material for OSDF Cell #5
 perimeter wedges will take 10 days and require 1 CAT 330 excavator, 1 CAT 825
 sheep's foot roller, 1 CAT D6 bulldozer, 2.5 operators, 4 Volvo A-30 trucks, 1 CAT
 613 waterwagon, 5 teamsters and 2 laborers. This activity will also require 2
 surveyors for 1 day.
- Placement of the sacrificial geomembrane will take 2 days and will require 4 laborers
- Construction of the OSDF Cell #5 Access Ramp will take 3 days and will require 1 CAT D6 bulldozer, 1 CAT 966 loader, 2 operators, 3 Volvo A-30 trucks, 3 teamsters, and 1 laborer. This activity will also require one water truck for 1.5 days and one teamster for 1.5 days.
- This activity will require 2 surveyors for 1 day

7) Task #7 - Catchment Area

Technical specification sections 02710 and 02714

7.1) Plan/Scope - Catchment Area

- Place and survey non-impacted granular layer and geotextile in the catchment area
- Construction survey

7.2) Quantification - Catchment Area

The following are estimated quantities for the construction contractor:

- Placement of the non-impacted granular layer and geotextile in the catchment area will require 1 CAT D6 LGP bulldozer, 1 operator, 2 Volvo A-30 trucks, 2 teamsters and 4 laborers.
- 8) Task #8 Video Inspection of HDPE Pipe

Technical specification section 02605

8.1) Plan/Scope - Video Inspection of HDPE Pipe

- Video inspection of solid wall HDPE pipes for leachate detection system, leachate collection system, and redundant leachate collection system will be performed by a specialty contractor
- This activity covers the initial videotaping of leachate lines between valve houses and inlet boxes in Cell 5.

8.2) Quantification - Video Inspection of HDPE Pipe

The following are estimated quantities for the construction contractor:

- Video inspection will take a specialty contractor 1 day with 2 technicians.
- 9) Task #9 Horizontal Monitoring Well #6
- 9.1) Plan/Scope Horizontal Monitoring Well #6
- Horizontal monitoring wells must be installed and operating a minimum of 12 months prior to placement of the 12" impacted protective layer in OSDF Cell liner #6.
- Receive, store, inspect HDPE pipe (perforated and solid), geotextile and drainage material
- Place/install HDPE pipe, geotextile, and drainage layer
- Tie-in with HDPE pipe outside Valve House #6 and perform hydro testing the solid wall HDPE pipes for leachate detection system, leachate collection system, and redundant leachate collection system.
- Construction survey
- Dust control

9.2) Quantification - Horizontal Monitoring Well #6

The following are estimated quantities for the construction contractor:

 Receive, store and inspect HDPE pipe (perforated and solid), geotextile and drainage material for OSDF Cell #6 horizontal monitoring wells will take ½ of one day and require 2 laborers and 1 operator.

- Placement/ installation of the HDPE pipe, geotextile material an drainage layer stone for OSDF Cell #6 horizontal monitoring wells will take 6 weeks and require 1 CAT 330 excavator, 1 CAT D6 bulldozer (4 weeks), 1 CAT 825 sheep's foot roller (2 weeks), 2.5 operators, 1 laborer, and 2 pipefitters. This activity will require 2 surveyors 1 day.
- Tie-in of the HDPE pipe to stub-outs from valve houses #6 will take 2 days and require 2 pipefitters (backfill is included in the placement task)
- Dust control will require 1 CAT 613 waterwagon and one teamster for ½ of the time
- 10) Task #10 Closeout
- 10.1) Plan/Scope Closeout
- Completion of project punchlist
- Final survey and redlines
- Demobilization
- 10.2) Quantification Close-out

Not applicable.

1.5.10 CCPLF - OSDF Cell #5 Cap

The scope of work for this charge number is the construction of the OSDF Cell #5 cap which includes: submittals and procurement, site preparation, contouring layer, clay cap, geosynthetic cap, drainage layer, biointrusion barrier with choking layer, filter layer, vegetative layer, topsoil, vegetation and close-out.

R1 – D-554 Construction of Cell #5 cap will be performed by Fluor Fernald, Inc. (self-performed) with the exception of the following activities: GML installation - panel layout, welding, seaming, testing and repair of GML, sewing of geotextile and leak detection testing of GML.

Specialty contractors will perform these activities the cell contractor.

- 1) Task #1 Submittals and Procurement
- 1.1) Subtask #1 Submittals
- 1.1)1 Plan/Scope Submittals

Prepare work plans, technical submittals and the submittal register. Work plans and technical submittals will be prepared by the cell contractor. Work plans include surface water management and erosion control plan, earthwork work plan, fugitive dust control,

safe work plan, traffic control plan, project specific health and safety plan and QA plan. The construction schedule for Cell #5 cap will be prepared by the cell.

1.1)2 Quantification - Submittals

Not applicable

1.2) Subtask #2 - Procurement

1.2)1 Plan/Scope - Procurement

The following material will be procured by Fluor Fernald, Inc. for the OSDF Cell #5 cap:

Material: GCL, GML with welding rod, geotextile.

Equipment: None.

Labor: None

Subcontractor/Services: None.

1.2)2 Quantification - Procurement

Not applicable

2) Task #2 - Site Preparation

Technical specification sections 02100, 02110, 02150, 02200, 02230, 02270, 02721

2.1) Plan/Scope - Site Preparation

- Mobilization of equipment, perform safety checks, training, installation of surface water management and erosion controls, construction fence, verification of existing conditions (including field surveys), clearing and grubbing, excavation, and culvert installation
- Construction of an access/service road on the west side of the OSDF. This activity
 will require fill and gravel surfacing. The gravel will be delivered to the site from
 outside suppliers.
- Rework the drainage ditch on the west side of Cell #5
- Excavation of the sacrificial clay wedges and removal of 20 foot wide x 400 foot long OSDF haul road from the west side of the OSDF. Placement of impacted material into the OSDF from road removal is covered by CCPL3. Stockpiling of non-impacted material from road removal is covered under this charge number
- Dust control

2.2) Quantification - Site Preparation

The following are estimated quantities for the construction contractor:

- Mobilization of equipment will take 2 weeks and require 1 mechanic, and
 1 superintendent
- Training, all labor must receive on-site training
- Relocation of Rad fencing will take 1 week and will require 2 laborers and 1,600 lf of fencing
- Construction of the access road/ service road on the west side of the OSDF will require 600 cy of fill. This activity will take 2 days and will require 1 CAT D6 bulldozer, 1 CAT 825 sheep's foot roller, 2 operators, 3 Volvo A-30 truck, 1 CAT 613 waterwagon (for 1 day for dust control), 3.5 teamsters and 1 laborer. This activity will require placement of 500 tons of #304 stone for the service road.
- Placement of the #304 stone for the access road/ service road will take 1 day and will require 5,200 CY of stone, 1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 2 operators, 1 CAT 613 waterwagon (for ½ day for dust control), 1 teamster (for ½ day) and 1 laborer.
- Rework of the 400 ft long V-drainage ditch on the west side of Cell #5 will take 3 days and will require 2,000 cy of fill, 1 CAT 330 excavator, 1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 2 operators, 3 Volvo A-30 trucks, 1 CAT 613 waterwagon (for .75 days), 3.25 operators and 1 laborer. Placement of riprap in the ditch will take 2 days and will require 300 tons of type "D" riprap, 1 CAT 330 excavator, 1 CAT D6 bulldozer, 2 operators and 2 laborers
- Removal of the 20 foot wide x 400 foot long OSDF haul road from the west side of the OSDF and excavation of sacrificial clay wedge will take 5 days and will require 1 CAT D6 LGP bulldozer, 1 CAT 330 excavator, 2 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), 2.5 teamsters and 1 laborer

3) Task #3 - Contouring Layer

Technical specification 02240

3.1) Plan/Scope - Contouring Layer

- Remove existing silt fence (two rows) from select impacted material layer
- Survey and verify top of the existing select impacted material layer
- Grade, recompact top of select layer
- Construct access ramp with non-impacted contouring layer material

- Place non-impacted material contouring layer
- Survey and verify non-impacted material contouring layer
- Surface water management and erosion control
- Dust control

3.2) Quantification - Contouring Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Removal of existing silt fence (two rows) from select impacted material layer will take 1 day and will require 1 CAT 416 Backhoe, 1 operator and 2 laborers.
- Surveying and verification of the top of the existing select impacted material layer will take 1 day and will require 2 surveyors.
- Grading and recompacting the top of the select layer will take 5 days and will require1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 2 operators, 1 CAT 613 waterwagon (for dust control), 1 teamster and 2 laborers.
- Construction of the access ramp will take 2 days and will require 1 CAT 330 excavator, 1 CAT D6 LGP bulldozer, 1 CAT 825 sheep's foot roller, 3 operators, 6 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 1 day for dust control), 6.5 teamsters, and 1 laborer
- Placement of the non-impacted material contouring layer will take 10 days and will require 1 CAT 330 excavator, 1 CAT D6 LGP bulldozer, 1 CAT 825 sheep's foot roller (for 5 days), 2.5 operators, 6 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 5 days for dust control), 6.5 teamsters and 2 laborers.
- Survey and verification of the top of the contouring layer will take 1 day and will require 2 surveyors for 1 day.

4) Task #4 - Clay Cap

Technical specification section 02225

4.1) Plan/Scope - Clay Cap

- Maintain the Borrow Area Haul Road
- Provide traffic control at intersection of Borrow Area Haul Road and North Entrance Road. This activity consists of installing stop signs and removing stop signs after completion of hauling of the material from the Borrow Area.

- Excavate, load and haul clay cap material from OSDF Borrow Area stockpiles and haul to OSDF Cell #5 cap
- Placement, compaction, maintenance and survey of the clay surface. The clay cap
 will be overbuilt 0.1" to 0.3" to allow for possible desiccation cracking of the clay
 surface. Approximately 0.1" to 0.2" of the excess material will be removed as
 installation of GCL progresses from east to west.
- Construction survey
- Dust control

4.2) Quantification - Clay Cap

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Excavation, loading and hauling of the clay from the Borrow Area stockpiles will take 20 days and will require 1 CAT 330 excavator, 1 operator, 6 Volvo A-30 trucks and 6 teamsters
- Placement, compaction of 18,000 ICY of clay will take 20 days and will require 1 CAT D6 LGP bulldozer, 1 CAT SS250 soil stabilizer, 1 CAT 563 smooth drum roller, 1 CAT 825 sheep's foot roller, 3.5 operators, 1 CAT 613 waterwagon (for dust control), 1 teamster, and 3 laborers
- Removal of excess clay will require 1 CAT D8 LGP bulldozer, 1 CAT 330 excavator, 1 CAT 563 smooth drum roller, 2.5 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), and 3 teamsters. This activity will take 5 days.
- Survey of the finished clay surface will require 2 surveyors for 1 day.

5) Task #5 - Geosynthetic Cap

Technical specification sections 02714, 02770 and 02772

5.1) Plan/Scope - Geosynthetic Cap

- Receiving, unloading, inspecting, storing geosynthetic cap materials (GCL, GML and geotextile)
- Top of clay liner surface acceptance by Fluor Fernald, GML specialty contractor, and CQC consultant
- GCL, GML and geotextile deployment

- Panel layout, welding, seaming, non-destructive GML testing and repair of GML to be performed by the cell contractor. Sewing of geotextile to be performed by the cell contractor. Movement of the GCL, GML and geotextile from the storage area will be performed concurrently with deployment of the material.
- Leak detection testing of GML by specialty contractor.
- Location survey of GML panels and seams will be performed by the cell contractor
- Construction survey
- Dust control

5.2) Quantification - Geosynthetic Cap

Refer to Tables 1.5.A and 1.5.B for material procurement and/placement quantities. The following are estimated quantities for the construction contractor:

- Receiving, unloading, inspecting and storing geosynthetic liner material will take 8 days over a period of one month. This activity will require 1 CAT TH83 forklift, 1 operator and 2 laborers.
- Acceptance of the top of clay liner will require 2 surveyors for 1 day.
- Deployment of the GCL, GML and geotextile will take 17 days and will require 1 posi-trac, 1 CAT 563 smooth drum roller, 1 CAT TH83 forklift, 2.5 operators and 10 laborers. Installation of the liner includes panel layout, welding, seaming, non-destructive testing, repair of GML and sewing of geotextile.
- Leak detection testing of the GML will be performed by the cell contractor and will take 5 days. This activity will require 1 posi-trac, 1 operator, 2 laborers and a 2" gas powered pump.
- Placement of geotextile will be by the cell contractor. This activity will take 5 days and require 1 posi-trac, 1 CAT TH83 forklift, 2 operators and 6 laborers. The sewing of the geotextile will be by the cell contractor.
- Location survey of the GML panels and seams will require 2 surveyors for one day.

6) Task #6 - Drainage Layer

Technical specification section 02710

6.1) Plan/Scope - Drainage Layer

- Receiving, stockpiling and inspecting the #78 stone will occur west of OSDF Cell #5.
- Placing drainage layer, rolling and surveying of drainage layer surface
- Construction survey
- Dust control

6.2) Quantification - Drainage Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Receiving, stockpiling and inspection of 30,000 tons of #78 stone for the drainage layer will take 25 days and will require 1 CAT D8 LGP bulldozer, 1 operator and 1 laborer to act as a spotter.
- Placement of the #78 stone will take 20 days. This activity will require 2 CAT D6 bulldozers, 1 CAT 966 loader, 1 CAT 563 smooth drum roller, 3 operators, 4 Volvo A-30 trucks, 4 teamsters, and 2 laborers.
- Construction survey will require 2 surveyors for 1 day.
- Dust control for receiving and placement will require 1 CAT 613 waterwagon (for 11 days) and 0.5 teamster.

7) Task #7 - Biointrusion Barrier

Technical specification section 02280

7.1) Plan/Scope - Biointrusion Barrier

- Receiving, unloading, inspecting and storing biointrusion barrier and choke stone materials
- Survey and verify top of drainage layer elevation prior to placement of biointrusion barrier.
- Place biointrusion barrier and choke stone
- Dust control

7.2) Quantification - Biointrusion Barrier

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Receiving, stockpiling and inspection of 57,000 tons of riprap for the biointrusion barrier and 4,500 tons of choke stone will take 40 days and will require 1 CAT D8 LGP bulldozer, 1 operator, 1 CAT 613 waterwagon (for 10 days for dust control), 0.25 teamster, and 1 laborer to act as a spotter.
- Verification and survey of the top of the drainage layer will take 1 day and will require 2 surveyors.
- Placement of the riprap and choke stone will take 30 days. This activity will require 2 CAT D8 LGP bulldozers, 1 CAT 966 loader, 1 CAT 330 excavator, 1 CAT 563 smooth drum roller, 4.5 operators, 4 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), 4.5 teamsters, and 2 laborers.

8) Task #8 - Filter Layer

Technical specification section 02712

8.1) Plan/Scope - Filter Layer

- Receive and stockpile filter layer material (sand) from off site supplier.
- Survey and verify top of biointrusion barrier elevation prior to placement of filter layer.
- Loading, hauling, and placement of the filter layer material
- Dust control

8.2) Quantification - Filter Layer

- Receiving and stockpiling 12,000 tons of filter layer material will take 12 days and will require 1 CAT D8 bulldozer, 1 operator, 1 CAT 613 waterwagon (for 3 days for dust control), 0.25 teamster and 1 laborer.
- Survey of the biointrusion barrier will take 1 day and will require 2 surveyors.

- Loading, hauling, and placement of the filter layer material will take 10 days and will require 1 CAT D6 LGP bulldozer, 1 CAT 966 loader, 2 operators, 4 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 3 days), 4.25 teamsters, and 1 laborer.
- 9) Task #9 Vegetative Layer

Technical specification section 02930

- 9.1) Plan/Scope Vegetative Layer
- Maintain the Borrow Area Haul Road
- Survey and verify top of filter layer elevation prior to placement of the vegetative layer.
- Load vegetative layer material from OSDF Borrow Area stockpiles and haul to OSDF
 Cell #5
- Placement of the vegetative layer
- Dust control

9.2) Quantification - Vegetative Layer

- Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon (for dust control), 1 operator and 1 teamster. Because the work is intermittent (less than 2 hours per week during cap construction) labor and equipment will be used on an as needed basis and taken from the vegetative layer construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the vegetative layer activity.
- Survey of the top of filter layer elevation will require 2 surveyors for 1 day.
- Loading of vegetative layer material from the Borrow Area stockpiles will require
 1 CAT 330 excavator and 1 operator. Hauling of the material will require 6 Volvo
 A-30 trucks and 6 teamsters. The activity will take 20 days to complete. Dust
 control will be performed by the CAT 613 waterwagon and the teamster covered
 by the Borrow Area Development (charge number CCPL2).

Placement of the vegetative layer will take 20 days to complete and will require
 1 CAT D6 low-ground pressure bulldozers, 1 CAT 825 sheep's foot roller, 1 CAT
 563 smooth drum roller, 4 operators, 1 CAT 613 waterwagon, and 1 teamster, and
 3 laborers.

10) Task #10 - Topsoil Layer

Technical specification section 02920

10.1) Plan/Scope - Topsoil Layer

- Maintain the Borrow Area Haul Road
- Survey and verify top of vegetative layer elevation prior to placement of the topsoil layer.
- Load topsoil layer material from OSDF Borrow Area stockpiles and haul to OSDF
 Cell #5
- Placement of the topsoil layer
- Dust control

10.2) Quantification - Topsoil Layer

- Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon (for dust control), 1 operator and 1 teamster. Because the work is intermittent (less than 2 hours per week during liner construction) labor and equipment will be used on an as needed basis and taken from the topsoil layer construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the topsoil layer activity.
- Survey of the top of vegetative layer elevation will require 2 surveyors for 1 day.
- Loading of topsoil layer material from the Borrow Area stockpiles will require 1 CAT 330 excavator and 1 operator. Hauling of the material will require 6 Volvo A-30 trucks and 6 teamsters. The activity will take 2 days to complete. Dust control will be performed by the CAT 613 waterwagon (for dust control) and the teamster covered by the Borrow Area Development (charge number CCPL2).

 Placement of the topsoil layer will require 1 CAT D6 low-ground pressure bulldozers, 1 CAT 825 sheep's foot roller, 1 CAT 563 smooth drum roller, 4 operators, 1 CAT 613 waterwagon (for dust control), and 1 teamster, and 3 laborers.

11) Task #11 - Permanent Vegetation

Technical specification section 02930

11.1) Plan/Scope - Permanent Vegetation

 Plant permanent vegetation on the Cell #5 final cover including seeding and erosion mat

11.2) Quantification - Permanent Vegetation

Permanent vegetation and installation of erosion mat will take 15 days and will require 1 CAT D6 bulldozer, 1 farm tractor with disc, 1 mechanical seed drill, 1 operator, 1 CAT 613 waterwagon (for dust control), 1 teamster, and 5 laborers. Cell #5 final cover surface that will require permanent vegetation is 7.25 acres

12) Task #12 - Closeout

12.1) Plan/Scope - Closeout

- Completion of project punchlist
- Final survey and redlines
- Demobilization

12.2) Quantification - Closeout

Not applicable

1.5.11 CCPLG - OSDF Cell #6 Liner

The scope of work for this charge number is the construction of the OSDF Cell #6 liner. Construction of the OSDF Cell #6 liner includes: submittals and procurement, site preparation, clay liner, primary and secondary geosynthetic liners, primary and secondary drainage layers, construction of perimeter clay wedges and access ramps, catchment area, video inspection of HDPE pipe, horizontal monitoring well #7 and close-out.

Construction of OSDF Cell #6 liner will be performed by the cell contractor.

1) Task #1 - Submittals and Procurement

1.1) Subtask #1 - Submittals

1.1)1 Plan/Scope - Submittals

Prepare work plans, technical submittals and the submittal register. Work plans and technical submittals will be prepared by the cell contractor. Work plans include surface water management and erosion control plan, earthwork work plan, fugitive dust control, safe work plan, traffic control plan, project specific health and safety plan and QA plan. The construction schedule for OSDF Cell #6 liner will be prepared by the cell contractor.

1.1)2 Quantification - Submittals

Not applicable

1.2) Subtask #2 - Procurement

1.2)1 Plan/Scope - Procurement

The following material will be procured by Fluor Fernald, Inc. for the OSDF Cell #6 liner:

Material: GCL, GML with welding rod, geotextile.

Equipment: None.

Labor: None

Subcontractor/Services: None.

1.2)2 Quantification - Procurement

Not applicable

2) Task #2 - Site Preparation

Technical specification sections 02100, 02110, 02150, 02200, 02230, 02270, 02721

2.1) Plan/Scope - Site Preparation

- Mobilization, training, installation of SWM&EC, construction fence, verification of existing conditions (including field surveys), clearing and grubbing, access/haul roads, removal of topsoil, excavation, overexcavation, removal of existing utilities including drain tiles as shown on current (year 2001) utility drawings and subgrade preparation
- Construct OSDF sediment basin #2 and fill remaining portion of sediment basin #1

- Reroute drain line from new OSDF equipment wash facility to valve house #7
- Survey subgrade and acceptance by Fluor Fernald
- Maintain subgrade until placement of first lift of clay liner
- Installation of gravity inlet structures and reinforced concrete pipe
- Dust control

2.2) Quantification - Site Preparation

The following are estimated quantities for the construction contractor:

- Installation of SWM&EC will require 2 laborers, 1 operator and a CAT 416 backhoe for 2 days. 1,100 lf of silt fence will be needed.
- Installation of the construction fence will require 2 laborers for 2 days and 1,000 lf of construction fence.
- Construction of OSDF sediment basin #2 and filling of sediment basin #1 will take 15 days and will require 20,000 CY of excavation and 5,000 cy of fill, 1 CAT 330 excavator, 1 CAT D6 bulldozer, 1 CAT 825 sheep's foot roller, 2.5 operators, 5 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 7.5 days) and 5.5 teamsters, 2 laborers
- Rerouting of the drain line from new OSDF equipment wash facility to valve house
 #7 will take require 1 CAT 330 excavator, 1 operator, 2 walk-behind compactors,
 1 2" electric sump pump and 2 laborers for 5 days. This activity will require 500 lf
 of 12" HDPE pipe, 1 HDPE welding machine and 2 pipefitters for 10 days.
- Surveying of existing conditions will require 2 surveyors, one week (40 hours each)
- Construction of a portion of the OSDF haul road (approximately 440 lf of road, adjacent and to the west of OSDF Cell 6) will be constructed of crushed stone and will require 1,000 cy of fill, 500 tons of #304 stone. Construction will take 5 days. Construction will require 2 Volvo 30-ton trucks, 1 waterwagon, 3 teamsters, 1 CAT 825 sheep's foot roller, 1 CAT 966 loader, 1 CAT D-6 bulldozer, 3 operators, and 2 laborers.
- Preparation of the construction area

- Excavation of liner #6 will be 4,000 cy and will take 10 days to complete.
 Required equipment and labor will be 1 water truck, 4 Volvo A-30 trucks,
 5 teamsters, 1 CAT D-6 bulldozer, 1 CAT D-8 bulldozer, 1 CAT 330 excavator,
 3 operators. Excavation will progress from east to west.
- Over-excavation of unsuitable material will be 2,000 cy and will take 5 days to complete. This activity will require 1 CAT 613 waterwagon, 4 Volvo A-30 trucks, 5 teamsters, 1 CAT D-8 LGP bulldozer, 1 CAT 330 excavator, 1 CAT 825 sheep's foot roller and 3 operators
- Removal of existing utilities is included with excavation.
- Removal of topsoil is included in other activities
- Surveying of the liner #6 subgrade will take 2 surveyors 2 days to complete
- Maintaining the liner #6 subgrade prior to placement of the clay liner will require
 2 laborers, 1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 1 operator and
 1 3" pump. Total duration will be 2 days.
- Installation of the gravity inlet structure and the reinforced concrete pipe will take
 days to complete. Installation will require 2 laborers, 1 CAT 330 excavator,
 operator, 60 If of 12" RCP and gravel material to bed and surround the RCP.

3) Task #3 - Clay Liner

Technical specification section 02225

3.1) Plan/Scope - Clay Liner

- Maintain the Borrow Area Haul Road
- Provide traffic control at intersection of Borrow Area Haul Road and North Entrance Road. Consists of installing stop signs and removing stop signs after completion of the clay wedge.
- Load clay liner material from OSDF Borrow Area stockpiles and haul to OSDF Cell #6
- Placement, compaction, maintenance and survey of the clay surface
- The clay liner will be overbuilt 0.1" to 0.3" to allow for possible desiccation cracking of the clay surface. Clay liner placement will progress from east to west. Approximately 0.1" to 0.2" of the excess material will be removed as installation of GCL progresses from east to west.

- Construction survey
- Dust control

3.2) Quantification - Clay Liner

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon, 1 operator and 1 teamster. Because the work is intermittent (less than 2 hours per week during liner construction) labor and equipment will be used on an as needed basis and taken from the clay liner construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the clay liner activity.
- Traffic control at the intersection of the Borrow Area Haul Road and the North Entrance Road will require 1 laborer to install and remove stop signs, warning signs at the beginning and the end of the clay hauling activity. This activity will require 1 laborer for 8 hours.
- Loading of clay material from the Borrow Area stockpiles will require 1 CAT 330
 excavator and 1 operator. Hauling of the material will require 6 Volvo A-30 trucks
 and 6 teamsters. The activity will take 25 days to complete. Dust control will be
 performed by the CAT 613 waterwagon and the teamster covered by the Borrow
 Area Development (charge number CCPL2).
- Placement of the clay liner will require 1 CAT D8 low-ground pressure bulldozer, 1 CAT 825 sheep's foot roller, 1 CAT 563 smooth drum roller, 1 CAT SS250 soil stabilizer, 4 operators, 1 CAT 613 waterwagon, and 1 teamster, and 4 laborers. Of the four laborers 1 will act as a spotter, 1 will act as the grade checker, and 2 will perform rock picking from the clay liner. The CAT 613 waterwagon and teamster will also support stone delivery at the construction laydown area and other concurrent clean work. Clay liner construction will require 33,000 ICY of clay.
- Removal of excess clay will require 1 CAT D8 LGP bulldozer, 1 CAT 330 excavator, 1 CAT 563 smooth drum roller, 2.5 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon, and 3 teamsters. This activity will take 5 days.
- Survey of the finished clay surface will require 2 surveyors for 1 day.
- 4) Task #4 Primary and Secondary Geosynthetic Liners

Technical specification sections 02605, 02714, 02770 and 02772

4.1) Plan/Scope - Primary and Secondary Geosynthetic Liners

- Receiving, unloading, inspecting, storing geosynthetic liner material (GCL, GML and geotextile), liner penetration boxes and HDPE pipe (solid wall and perforated). The geosynthetic material will be stored south of the OSDF Cell #6 liner area.
- Top of clay liner surface acceptance by the cell contractor, Fluor Fernald, GML specialty contractor, and CQC consultant
- Primary and secondary GCL, GML and geotextile placement and installation of 6 inner penetration boxes
- Hydro test penetration boxes and solid wall HDPE pipes between penetration boxes and valve house #4 for the leachate detection system, leachate collection system, and redundant leachate collection system
- Movement of the GCL, GML, and geotextile from the storage location to the OSDF Cell #6 liner and deployment of the material will be performed by the cell contractor. Deployment of the GCL, GML and geotextile will be from east to west.
- Panel layout, welding, seaming, tie-in of penetration boxes, non-destructive GML testing and repair of GML to be performed by specialty contractor. Sewing of geotextile to be performed by the cell contractor.
- Leak detection testing of primary GML will be performed by the cell contractor.
- Location survey of GML panels and seams will be performed by the cell contractor.
- Trenching, placement of primary and secondary liner terminations, backfill and compaction around OSDF Cell #6 perimeter
- Construction survey
- Dust control

4.2) Quantification - Primary and Secondary Geosynthetic Liners

Refer to Tables 1.5.A and 1.5.B for material procurement and/placement quantities. The following are estimated quantities for the construction contractor:

- Receiving, unloading, inspecting and storing geosynthetic liner material will take 15 days over a period of two months. This activity will require 1 CAT TH83 forklift, 1 operator and 2 laborers.
- Acceptance of the top of clay liner will require 2 surveyors for 1 day.

- Placement of the 3 secondary penetration boxes on the west side of the liner will take 12 days to complete. This activity will require 1 CAT 330 excavator, 1 operator, 2 walk behind plate compactors, 2 laborers, and 2 pipefitters. This activity includes the excavation of the clay, installation and connection of the penetration boxes and hydro testing of the lines to valve house #7.
- Placement of the 3 primary penetration boxes on the west side of the liner will take 9 days to complete. This activity will require 1 posi-trac with bucket, 1 operator, 2 walk behind plate compactors, 2 laborers, and 2 pipefitters. This activity includes the excavation of the gravel, installation and connection of the penetration boxes and hydro testing of the lines to valve house #7.
- Deployment of the secondary GCL, GML and geotextile will take 15 days and will require 1 posi-trac, 1 CAT 563 smooth drum roller, 1 CAT TH83 forklift,
 2.5 operators and 10 laborers. Movement of the GCL, GML and geotextile from the storage area will be performed concurrently with deployment of the material.
- Installation of the secondary liner includes panel layout, welding, seaming, tie-in of
 penetration boxes to the liners, non-destructive testing, repair of GML and sewing
 of geotextile will be performed by a specialty contractor. The contractor cost will
 include labor, material and equipment for this work.
- Deployment of the primary GCL, GML and geotextile will take 15 days and will require 1 posi-trac, 1 CAT TH83 forklift, 2.5 operators and 10 laborers. Movement of the GCL, GML and geotextile from the storage area will be performed concurrently with deployment of the material.
- Installation of the primary liner includes panel layout, welding, seaming, tie-in of
 penetration boxes to the liners, non-destructive testing, repair of GML and sewing
 of geotextile which will be performed by the cell contractor. The contractor cost
 will include labor, material and equipment for this work.
- Leak detection testing of the primary GML will be performed by the cell contractor and will take 5 days. This activity will require 1 posi-trac, 1 operator, 2 laborers and a 2" gas powered pump.
- Placement of geotextile will be by the cell contractor. This activity will take 5 days and require 1 posi-trac, 1 CAT TH83 forklift, 2 operators and 6 laborers. The sewing of the geotextile will be by the cell contractor.
- Location survey of the GML panels and seams will require 2 surveyors for one day.
- Trenching and placement of the secondary and primary liner terminations around the perimeter will take 5 days and require a CAT 330 excavator, 1 operator, 1 walk behind compactor and 2 laborers.

5) Task #5 - Primary and Secondary Drainage Layers

Technical specification section 02605 and 02710

5.1) Plan/Scope - Primary and Secondary Drainage Layers

- Receiving, stockpiling and inspecting the #78 and #57 stone will occur south of OSDF liner #6. There will be two periods of stockpiling stone – 1 for the secondary and 1 for the primary.
- Placing drainage layer, installation of perforated HDPE pipe, and rolling and surveying of drainage layer surfaces
- Construction survey
- Dust control

5.2) Quantification - Primary and Secondary Drainage Layers

- Receiving, stockpiling and inspection of the #78 and #57 stone for the secondary layer will take 20 days and will require 1 CAT D8 LGP bulldozer, 1 operator and 1 laborer to act as a spotter
- Placement of the #78 and #57 stone and the perforated drainage pipe for the secondary layer will take 10 days. This activity will require 2 CAT D6 bulldozers, 1 CAT 966 loader, 1 CAT 563 smooth drum roller, 3 operators, 3 Volvo A-30 trucks, 3 teamsters, 2 pipefitters and 4 laborers. Of the 4 laborers, 1 will act as a spotter, 1 will act as a grade checker, 2 will work on grading of the stone. Handling of the pipe will be shared by these laborers.
- Receiving, stockpiling and inspection of the #78 and #57 stone for the primary layer will take 20 days and will require 1 CAT D8 LGP bulldozer, 1 operator and 1 laborer to act as a spotter
- Dust control will require 1 CAT 613 waterwagon (for 10 days) and 0.5 teamster.
- 6) Task #6 Construction of Perimeter Clay Wedges and Access Ramp
- 6.1) Plan/Scope Construction of Perimeter Clay Wedges and Access Ramp
- Traffic control at intersection of Borrow Area Haul Road and North Entrance Road is covered under Task 3 of this charge number.

- Load from OSDF Borrow Area stockpiles and haul to OSDF Cell #6 perimeter clay wedges
- Placement, compaction, maintenance and survey of the OSDF Cell #6 perimeter clay wedges
- Placement of sacrificial geomembrane
- Construction of OSDF Cell #6 access ramp
- Construction survey
- Dust control

6.2) Quantification - Construction of Perimeter Clay Wedges and Access Ramp

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Loading, hauling, placement and compaction of clay material for OSDF Cell #6
 perimeter wedges will take 10 days and require 1 CAT 330 excavator, 1 CAT 825
 sheep's foot roller, 1 CAT D6 bulldozer, 2.5 operators, 4 Volvo A-30 trucks, 1 CAT
 613 waterwagon, 5 teamsters and 2 laborers. This activity will also require
 2 surveyors for 1 day.
- Placement of the sacrificial geomembrane will take 2 days and will require
 4 laborers
- Construction of the OSDF Cell #6 Access Ramp will take 3 days and will require 1 CAT D6 bulldozer, 1 CAT 966 loader, 2 operators, 3 Volvo A-30 trucks, 3 teamsters, and 1 laborer. This activity will also require one water truck for 1.5 days and one teamster for 1.5 days.
- This activity will require 2 surveyors for 1 day

7) Task #7 - Catchment Area

Technical specification sections 02710 and 02714

7.1) Plan/Scope - Catchment Area

- Place and survey non-impacted granular layer and geotextile in the catchment area
- Construction survey

7.2) Quantification - Catchment Area

The following are estimated quantities for the construction contractor:

- Placement of the non-impacted granular layer and geotextile in the catchment area will require 1 CAT D6 LGP bulldozer, 1 operator, 2 Volvo A-30 trucks, 2 teamsters and 4 laborers.
- 8) Task #8 Video Inspection of HDPE Pipe

Technical specification section 02605

- 8.1) Plan/Scope Video Inspection of HDPE Pipe
- Video inspection of solid wall HDPE pipes for leachate detection system, leachate collection system, and redundant leachate collection system will be performed by a specialty contractor
- This activity covers the initial videotaping of leachate lines between valve houses and inlet boxes in Cell 6.

8.2) Quantification - Video Inspection of HDPE Pipe

The following are estimated quantities for the construction contractor:

- Video inspection will take a specialty contractor 1 day with 2 technicians.
- 9) Task #9 Horizontal Monitoring Well (HMW) #7
- 9.1) Plan/Scope Horizontal Monitoring Well (HMW) #7
- Horizontal monitoring wells must be installed and operating a minimum of 12 months prior to placement of the 12" impacted protective layer in OSDF Cell liner #7.
- Receive, store, inspect HDPE pipe (perforated and solid), geotextile and drainage material
- Place/install HDPE pipe, geotextile, and drainage layer
- Tie-in with HDPE pipe outside Valve House #7 and perform hydro testing the solid wall HDPE pipes for leachate detection system, leachate collection system, and redundant leachate collection system.
- Construction survey

Dust control

9.2) Quantification - Horizontal Monitoring Well (HMW) #7

The following are estimated quantities for the construction contractor:

- Receive, store and inspect HDPE pipe (perforated and solid), geotextile and drainage material for OSDF Cell #7 horizontal monitoring wells will take ½ of one day and require 2 laborers and 1 operator.
- Placement/ installation of the HDPE pipe, geotextile material an drainage layer stone for OSDF Cell #7 horizontal monitoring wells will take 6 weeks and require 1 CAT 330 excavator, 1 CAT D6 bulldozer (4 weeks), 1 CAT 825 sheep's foot roller (2 weeks), 2.5 operators, 1 laborer, and 2 pipefitters. This activity will require 2 surveyors 1 day.
- Tie-in of the HDPE pipe to stub-outs from valve houses #7 will take 2 days and require 2 pipefitters (backfill is included in the placement task)
- Dust control will require 1 CAT 613 waterwagon and one teamster for ½ of the time
- 10) Task #10 Closeout
- 10.1) Plan/Scope Closeout
- Completion of project punchlist
- Final survey and redlines
- Demobilization
- 10.2) Quantification Closeout

Not applicable

1.5.12 CCPLH - OSDF Cell #6 Cap

The scope of work for this charge number is the construction of the OSDF Cell #6 cap which includes: submittals and procurement, site preparation, contouring layer, clay cap, geosynthetic cap, drainage layer, biointrusion barrier with choking layer, filter layer, vegetative layer, topsoil, vegetation and close-out.

R1 – D-554 Construction of Cell #6 cap will be performed by Fluor Fernald, Inc. (self-performed) with the exception of the following activities: GML installation - panel layout, welding, seaming, testing and repair of GML, sewing of geotextile and leak detection testing of GML. Specialty contractors will perform these activities the cell contractor.

1) Task #1 - Submittals and Procurement

1.1) Subtask #1 - Submittals

1.1)1 Plan/Scope - Submittals

Prepare work plans, technical submittals and the submittal register. Work plans and technical submittals will be prepared by the cell contractor. Work plans include surface water management and erosion control plan, earthwork work plan, fugitive dust control, safe work plan, traffic control plan, project specific health and safety plan and QA plan. The construction schedule for Cell #6 cap will be prepared by the cell contractor.

1.1)2 Quantification - Submittals

Not applicable

1.2) Subtask #2 - Procurement

1.2)1 Plan/Scope - Procurement

The following material will be procured by Fluor Fernald, Inc. for the OSDF Cell #6 cap:

Material: GCL, GML with welding rod, geotextile.

Equipment: None.

Labor: None

Subcontractor/Services: None.

1.2)2 Quantification - Procurement

Not applicable

2) Task #2 - Site Preparation

Technical specification sections 02100, 02110, 02150, 02200, 02230, 02270, 02721

2.1) Plan/Scope - Site Preparation

 Mobilization of equipment, perform safety checks, training, installation of surface water management and erosion controls, construction fence, verification of existing conditions (including field surveys), clearing and grubbing, excavation, and culvert installation

- Construction of an access/service road on the west side of the OSDF. This activity
 will require fill and gravel surfacing. The gravel will be delivered to the site from
 outside suppliers.
- Rework the drainage ditch on the west side of Cell #6
- Excavation of the sacrificial clay wedges and removal of 20 foot wide x 400 foot long OSDF haul road from the west side of the OSDF. Placement of impacted material into the OSDF from road removal is covered by CCPL3. Stockpiling of non-impacted material from road removal is covered under this charge number
- Dust control

2.2) Quantification - Site Preparation

The following are estimated quantities for the construction contractor:

- Mobilization of equipment will take 2 weeks and require 1 mechanic, and
 1 superintendent
- Training, all labor must receive on-site training
- Relocation of Rad fencing will take 1 week and will require 2 laborers and 1,600 lf of fencing
- Construction of the access road/ service road on the west side of the OSDF will require 600 cy of fill. This activity will take 2 days and will require 1 CAT D6 bulldozer, 1 CAT 825 sheep's foot roller, 2 operators, 3 Volvo A-30 truck, 1 CAT 613 waterwagon (for 1 day for dust control), 3.5 teamsters and 1 laborer. This activity will require placement of 500 tons of #304 stone for the service road.
- Placement of the #304 stone for the access road/ service road will take 1 day and will require 5,200 CY of stone, 1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 2 operators, 1 CAT 613 waterwagon (for ½ day for dust control), 1 teamster (for ½ day) and 1 laborer.
- Rework of the 400 ft long V-drainage ditch on the west side of Cell #6 will take 3 days and will require 2,000 cy of fill, 1 CAT 330 excavator, 1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 2 operators, 3 Volvo A-30 trucks, 1 CAT 613 waterwagon (for .75 days), 3.25 operators and 1 laborer. Placement of riprap in the ditch will take 2 days and will require 300 tons of type "D" riprap, 1 CAT 330 excavator, 1 CAT D6 bulldozer, 2 operators and 2 laborers
- Removal of the 20 foot wide x 400 foot long OSDF haul road from the west side of the OSDF and excavation of sacrificial clay wedge will take 5 days and will require

1 CAT D6 LGP bulldozer, 1 CAT 330 excavator, 2 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), 2.5 teamsters and 1 laborer

3) Task #3 - Contouring Layer

Technical specification 02240

3.1) Plan/Scope - Contouring Layer

- Remove existing silt fence (two rows) from select impacted material layer
- Survey and verify top of the existing select impacted material layer
- Grade, recompact top of select layer
- Construct access ramp with non-impacted contouring layer material
- Place non-impacted material contouring layer
- Survey and verify non-impacted material contouring layer
- Surface water management and erosion control
- Dust control

3.2) Quantification - Contouring Layer

- Removal of existing silt fence (two rows) from select impacted material layer will take 1 day and will require 1 CAT 416 Backhoe, 1 operator and 2 laborers.
- Surveying and verification of the top of the existing select impacted material layer will take 1 day and will require 2 surveyors.
- Grading and recompacting the top of the select layer will take 5 days and will require1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 2 operators, 1 CAT 613 waterwagon (for dust control), 1 teamster and 2 laborers.
- Construction of the access ramp will take 2 days and will require 1 CAT 330 excavator, 1 CAT D6 LGP bulldozer, 1 CAT 825 sheep's foot roller, 3 operators, 6 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 1 day for dust control), 6.5 teamsters, and 1 laborer
- Placement of the non-impacted material contouring layer will take 10 days and will require 1 CAT 330 excavator, 1 CAT D6 LGP bulldozer, 1 CAT 825 sheep's foot roller (for 5 days), 2.5 operators, 6 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 5 days for dust control), 6.5 teamsters and 2 laborers.

 Survey and verification of the top of the contouring layer will take 1 day and will require 2 surveyors for 1 day.

4) Task #4 - Clay Cap

Technical specification section 02225

4.1) Plan/Scope - Clay Cap

- Maintain the Borrow Area Haul Road
- Provide traffic control at intersection of Borrow Area Haul Road and North Entrance Road. This activity consists of installing stop signs and removing stop signs after completion of hauling of the material from the Borrow Area.
- Excavate, load and haul clay cap material from OSDF Borrow Area stockpiles and haul to OSDF Cell #6 cap
- Placement, compaction, maintenance and survey of the clay surface. The clay cap will be overbuilt 0.1" to 0.3" to allow for possible desiccation cracking of the clay surface. Approximately 0.1" to 0.2" of the excess material will be removed as installation of GCL progresses from east to west.
- Construction survey
- Dust control

4.2) Quantification - Clay Cap

- Excavation, loading and hauling of the clay from the Borrow Area stockpiles will
 take 20 days and will require 1 CAT 330 excavator, 1 operator, 6 Volvo A-30
 trucks and 6 teamsters
- Placement, compaction of 18,000 ICY of clay will take 20 days and will require 1 CAT D6 LGP bulldozer, 1 CAT SS250 soil stabilizer, 1 CAT 563 smooth drum roller, 1 CAT 825 sheep's foot roller, 3.5 operators, 1 CAT 613 waterwagon (for dust control), 1 teamster, and 3 laborers

- Removal of excess clay will require 1 CAT D8 LGP bulldozer, 1 CAT 330 excavator, 1 CAT 563 smooth drum roller, 2.5 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), and 3 teamsters. This activity will take 5 days.
- Survey of the finished clay surface will require 2 surveyors for 1 day.

5) Task #5 - Geosynthetic Cap

Technical specification sections 02714, 02770 and 02772

5.1) Plan/Scope - Geosynthetic Cap

- Receiving, unloading, inspecting, storing geosynthetic cap materials (GCL, GML and geotextile)
- Top of clay liner surface acceptance by Fluor Fernald, GML specialty contractor, and CQC consultant
- GCL, GML and geotextile deployment
- Panel layout, welding, seaming, non-destructive GML testing and repair of GML to be performed by the cell contractor. Sewing of geotextile to be performed by the cell contractor. Movement of the GCL, GML and geotextile from the storage area will be performed concurrently with deployment of the material.
- Leak detection testing of GML by specialty contractor.
- Location survey of GML panels and seams will be performed by the cell contractor
- Construction survey
- Dust control

5.2) Quantification - Geosynthetic Cap

Refer to Tables 1.5.A and 1.5.B for material procurement and/placement quantities. The following are estimated quantities for the construction contractor:

- Receiving, unloading, inspecting and storing geosynthetic liner material will take
 8 days over a period of one month. This activity will require 1 CAT TH83 forklift,
 1 operator and 2 laborers.
- Acceptance of the top of clay liner will require 2 surveyors for 1 day.

- Deployment of the GCL, GML and geotextile will take 17 days and will require 1 posi-trac, 1 CAT 563 smooth drum roller, 1 CAT TH83 forklift, 2.5 operators and 10 laborers. Installation of the liner includes panel layout, welding, seaming, non-destructive testing, repair of GML and sewing of geotextile.
- Leak detection testing of the GML will be performed by the cell contractor and will take 5 days. This activity will require 1 posi-trac, 1 operator, 2 laborers and a 2" gas powered pump.
- Placement of geotextile will be by the cell contractor. This activity will take 5 days and require 1 posi-trac, 1 CAT TH83 forklift, 2 operators and 6 laborers. The sewing of the geotextile will be by the cell contractor.
- Location survey of the GML panels and seams will require 2 surveyors for one day.

6) Task #6 - Drainage Layer

Technical specification section 02710

6.1) Plan/Scope - Drainage Layer

- Receiving, stockpiling and inspecting the #78 stone will occur west of OSDF
 Cell #6.
- Placing drainage layer, rolling and surveying of drainage layer surface
- Construction survey
- Dust control

6.2) Quantification - Drainage Layer

- Receiving, stockpiling and inspection of 30,000 tons of #78 stone for the drainage layer will take 25 days and will require 1 CAT D8 LGP bulldozer, 1 operator and 1 laborer to act as a spotter.
- Placement of the #78 stone will take 20 days. This activity will require 2 CAT D6 bulldozers, 1 CAT 966 loader, 1 CAT 563 smooth drum roller, 3 operators, 4 Volvo A-30 trucks, 4 teamsters, and 2 laborers.
- Construction survey will require 2 surveyors for 1 day.

 Dust control for receiving and placement will require 1 CAT 613 waterwagon (for 11 days) and 0.5 teamster.

7) Task #7 - Biointrusion Barrier

Technical specification section 02280

- 7.1) Plan/Scope Biointrusion Barrier
- Receiving, unloading, inspecting and storing biointrusion barrier and choke stone materials
- Survey and verify top of drainage layer elevation prior to placement of biointrusion barrier.
- Place biointrusion barrier and choke stone
- Dust control

7.2) Quantification - Biointrusion Barrier

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Receiving, stockpiling and inspection of 57,000 tons of riprap for the biointrusion barrier and 4,500 tons of choke stone will take 40 days and will require 1 CAT D8 LGP bulldozer, 1 operator, 1 CAT 613 waterwagon (for 10 days for dust control), 0.25 teamster, and 1 laborer to act as a spotter.
- Verification and survey of the top of the drainage layer will take 1 day and will require 2 surveyors.
- Placement of the riprap and choke stone will take 30 days. This activity will require 2 CAT D8 LGP bulldozers, 1 CAT 966 loader, 1 CAT 330 excavator, 1 CAT 563 smooth drum roller, 4.5 operators, 4 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), 4.5 teamsters, and 2 laborers.

8) Task #8 - Filter Layer

Technical specification section 02712

8.1) Plan/Scope - Filter Layer

Receive and stockpile filter layer material (sand) from off site supplier.

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- Survey and verify top of biointrusion barrier elevation prior to placement of filter layer.
- Loading, hauling, and placement of the filter layer material
- Dust control

8.2) Quantification - Filter Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Receiving and stockpiling 12,000 tons of filter layer material will take 12 days and will require 1 CAT D8 bulldozer, 1 operator, 1 CAT 613 waterwagon (for 3 days for dust control), 0.25 teamster and 1 laborer.
- Survey of the biointrusion barrier will take 1 day and will require 2 surveyors.
- Loading, hauling, and placement of the filter layer material will take 10 days and will require 1 CAT D6 LGP bulldozer, 1 CAT 966 loader, 2 operators, 4 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 3 days), 4.25 teamsters, and 1 laborer.

9) Task #9 - Vegetative Layer

Technical specification section 02930

9.1) Plan/Scope - Vegetative Layer

- Maintain the Borrow Area Haul Road
- Survey and verify top of filter layer elevation prior to placement of the vegetative layer.
- Load vegetative layer material from OSDF Borrow Area stockpiles and haul to OSDF
 Cell #6
- Placement of the vegetative layer
- Dust control

9.2) Quantification - Vegetative Layer

- Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon (for dust control), 1 operator and 1 teamster. Because the work is intermittent (less than 2 hours per week during cap construction) labor and equipment will be used on an as needed basis and taken from the vegetative layer construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the vegetative layer activity.
- Survey of the top of filter layer elevation will require 2 surveyors for 1 day.
- Loading of vegetative layer material from the Borrow Area stockpiles will require
 1 CAT 330 excavator and 1 operator. Hauling of the material will require 6 Volvo
 A-30 trucks and 6 teamsters. The activity will take 20 days to complete. Dust
 control will be performed by the CAT 613 waterwagon and the teamster covered
 by the Borrow Area Development (charge number CCPL2).
- Placement of the vegetative layer will take 20 days to complete and will require
 1 CAT D6 low-ground pressure bulldozers, 1 CAT 825 sheep's foot roller, 1 CAT
 563 smooth drum roller, 4 operators, 1 CAT 613 waterwagon, and 1 teamster, and
 3 laborers.

10) Task #10 - Topsoil Layer

Technical specification section 02920

10.1) Plan/Scope - Topsoil Layer

- Maintain the Borrow Area Haul Road
- Survey and verify top of vegetative layer elevation prior to placement of the topsoil layer.
- Load topsoil layer material from OSDF Borrow Area stockpiles and haul to OSDF Cell #6
- Placement of the topsoil layer
- Dust control

10.2) Quantification - Topsoil Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

 Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon (for dust control), 1 operator and 1 teamster.
 Because the work is intermittent (less than 2 hours per week during liner construction) labor and equipment will be used on an as needed basis and taken from the topsoil layer construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the topsoil layer activity.

- Survey of the top of vegetative layer elevation will require 2 surveyors for 1 day.
- Loading of topsoil layer material from the Borrow Area stockpiles will require 1 CAT 330 excavator and 1 operator. Hauling of the material will require 6 Volvo A-30 trucks and 6 teamsters. The activity will take 2 days to complete. Dust control will be performed by the CAT 613 waterwagon (for dust control) and the teamster covered by the Borrow Area Development (charge number CCPL2).
- Placement of the topsoil layer will require 1 CAT D6 low-ground pressure bulldozers, 1 CAT 825 sheep's foot roller, 1 CAT 563 smooth drum roller, 4 operators, 1 CAT 613 waterwagon (for dust control), and 1 teamster, and 3 laborers.

11) Task #11 - Permanent Vegetation

Technical specification section 02930

11.1) Plan/Scope - Permanent Vegetation

 Plant permanent vegetation on the Cell #6 final cover including seeding and erosion mat

11.2) Quantification - Permanent Vegetation

 Permanent vegetation and installation of erosion mat will take 15 days and will require 1 CAT D6 bulldozer, 1 farm tractor with disc, 1 mechanical seed drill, 1 operator, 1 CAT 613 waterwagon (for dust control), 1 teamster, and 5 laborers.
 Cell #6 final cover surface that will require permanent vegetation is 7.25 acres

12) Task #12 - Closeout

12.1) Plan/Scope - Closeout

- Completion of project punchlist
- Final survey and redlines
- Demobilization

12.2) Quantification - Closeout

Not applicable

1.5.13 CCPLJ - OSDF Cell #7 Liner

The scope of work for this charge number is the construction of the OSDF Cell #7 liner. Construction of the OSDF Cell #7 liner includes: submittals and procurement, site preparation, clay liner, primary and secondary geosynthetic liners, primary and secondary drainage layers, construction of perimeter clay wedges and access ramps, catchment area, video inspection of HDPE pipe.

Construction of OSDF Cell #7 liner will be performed by the cell contractor.

- 1) Task #1 Submittals and Procurement
- 1.1) Subtask #1 Submittals
- 1.1)1 Plan/Scope Submittals

Prepare work plans, technical submittals and the submittal register. Work plans and technical submittals will be prepared by the cell contractor. Work plans include surface water management and erosion control plan, earthwork work plan, fugitive dust control, safe work plan, traffic control plan, project specific health and safety plan and QA plan. The construction schedule for OSDF Cell #7 liner will be prepared by the cell contractor.

1.1)2 Quantification - Submittals

Not applicable

1.2) Subtask #2 - Procurement

1.2)1 Plan/Scope - Procurement

The following material will be procured by Fluor Fernald, Inc. for the OSDF Cell #7 liner:

Material: GCL, GML with welding rod, geotextile.

Equipment: None.

Labor: None

Subcontractor/Services: None.

1.2)2 Quantification - Procurement

Not applicable

2) Task #2 - Site Preparation

Technical specification sections 02100, 02110, 02150, 02200, 02230, 02270, 02721

2.1) Plan/Scope - Site Preparation

- Mobilization, training, installation of SWM&EC, construction fence, verification of
 existing conditions (including field surveys), clearing and grubbing, access/haul
 roads, removal of topsoil, excavation, overexcavation, removal of existing utilities
 including drain tiles as shown on current (year 2001) utility drawings and subgrade
 preparation
- Survey subgrade and acceptance by Fluor Fernald
- Maintain subgrade until placement of first lift of clay liner
- Installation of gravity inlet structures and reinforced concrete pipe
- Dust control

2.2) Quantification - Site Preparation

The following are estimated quantities for the construction contractor:

- Installation of SWM&EC will require 2 laborers, 1 operator and a CAT 416 backhoe for 2 days. 1,100 lf of silt fence will be needed.
- Installation of the construction fence will require 2 laborers for 2 days and 1,000 lf of construction fence.
- Surveying of existing conditions will require 2 surveyors, one week (40 hours each)
- Construction of a portion of the OSDF haul road (approximately 440 If of road, adjacent and to the west of OSDF Cell 7) will be constructed of crushed stone and will require 1,000 cy of fill, 500 tons of #304 stone. Construction will take 5 days. Construction will require 2 Volvo 30-ton trucks, 1 waterwagon, 3 teamsters, 1 CAT 825 sheep's foot roller, 1 CAT 966 loader, 1 CAT D-6 bulldozer, 3 operators, and 2 laborers.
- Preparation of the construction area
- Excavation of liner #7 will be 4,000 cy and will take 10 days to complete.
 Required equipment and labor will be 1 water truck, 4 Volvo A-30 trucks,
 5 teamsters, 1 CAT D-6 bulldozer, 1 CAT D-8 bulldozer, 1 CAT 330 excavator,
 3 operators. Excavation will progress from east to west.
- Over-excavation of unsuitable material will be 2,000 cy and will take 5 days to complete. This activity will require 1 CAT 613 waterwagon, 4 Volvo A-30 trucks,

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5 teamsters, 1 CAT D-8 LGP bulldozer, 1 CAT 330 excavator, 1 CAT 825 sheep's foot roller and 3 operators

- Removal of existing utilities is included with excavation.
- Removal of topsoil is included in other activities
- Surveying of the liner #7 subgrade will take 2 surveyors 2 days to complete
- Maintaining the liner #7 subgrade prior to placement of the clay liner will require
 2 laborers, 1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 1 operator and
 1 3" pump. Total duration will be 2 days.
- Installation of the gravity inlet structure and the reinforced concrete pipe will take
 5 days to complete. Installation will require 2 laborers, 1 CAT 330 excavator,
 1 operator, 60 If of 12" RCP and gravel material to bed and surround the RCP.

3) Task #3 - Clay Liner

Technical specification section 02225

3.1) Plan/Scope - Clay Liner

- Maintain the Borrow Area Haul Road
- Provide traffic control at intersection of Borrow Area Haul Road and North Entrance Road. Consists of installing stop signs and removing stop signs after completion of the clay wedge.
- Load clay liner material from OSDF Borrow Area stockpiles and haul to OSDF
 Cell #7
- Placement, compaction, maintenance and survey of the clay surface
- The clay liner will be overbuilt 0.1" to 0.3" to allow for possible desiccation cracking of the clay surface. Clay liner placement will progress from east to west. Approximately 0.1" to 0.2" of the excess material will be removed as installation of GCL progresses from east to west.
- Construction survey
- Dust control

3.2) Quantification - Clay Liner

- Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon, 1 operator and 1 teamster. Because the work is intermittent (less than 2 hours per week during liner construction) labor and equipment will be used on an as needed basis and taken from the clay liner construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the clay liner activity.
- Traffic control at the intersection of the Borrow Area Haul Road and the North Entrance Road will require 1 laborer to install and remove stop signs, warning signs at the beginning and the end of the clay hauling activity. This activity will require 1 laborer for 8 hours.
- Loading of clay material from the Borrow Area stockpiles will require 1 CAT 330
 excavator and 1 operator. Hauling of the material will require 6 Volvo A-30 trucks
 and 6 teamsters. The activity will take 25 days to complete. Dust control will be
 performed by the CAT 613 waterwagon and the teamster covered by the Borrow
 Area Development (charge number CCPL2).
- Placement of the clay liner will require 1 CAT D8 low-ground pressure bulldozer, 1 CAT 825 sheep's foot roller, 1 CAT 563 smooth drum roller, 1 CAT SS250 soil stabilizer, 4 operators, 1 CAT 613 waterwagon, and 1 teamster, and 4 laborers. Of the four laborers 1 will act as a spotter, 1 will act as the grade checker, and 2 will perform rock picking from the clay liner. The CAT 613 waterwagon and teamster will also support stone delivery at the construction laydown area and other concurrent clean work. Clay liner construction will require 33,000 ICY of clay.
- Removal of excess clay will require 1 CAT D8 LGP bulldozer, 1 CAT 330 excavator, 1 CAT 563 smooth drum roller, 2.5 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon, and 3 teamsters. This activity will take 5 days.
- Survey of the finished clay surface will require 2 surveyors for 1 day.
- 4) Task #4 Primary and Secondary Geosynthetic Liners

Technical specification sections 02605, 02714, 02770 and 02772

- 4.1) Plan/Scope Primary and Secondary Geosynthetic Liners
- Receiving, unloading, inspecting, storing geosynthetic liner material (GCL, GML and geotextile), liner penetration boxes and HDPE pipe (solid wall and perforated). The geosynthetic material will be stored south of the OSDF Cell #7 liner area.

- Top of clay liner surface acceptance by the cell contractor, Fluor Fernald, GML specialty contractor, and CQC consultant
- Primary and secondary GCL, GML and geotextile placement and installation of 6 liner penetration boxes
- Hydro test penetration boxes and solid wall HDPE pipes between penetration boxes and valve house #7 for the leachate detection system, leachate collection system, and redundant leachate collection system
- Movement of the GCL, GML, and geotextile from the storage location to the OSDF Cell #7 liner and deployment of the material will be performed by the cell contractor. Deployment of the GCL, GML and geotextile will be from east to west.
- Panel layout, welding, seaming, tie-in of penetration boxes, non-destructive GML testing and repair of GML to be performed by the cell contractor. Sewing of geotextile to be performed by cell contractor.
- Leak detection testing of primary GML will be performed by the cell contractor
- Location survey of GML panels and seams will be performed by the cell contractor
- Trenching, placement of primary and secondary liner terminations, backfill and compaction around OSDF Cell #7 perimeter
- Construction survey
- Dust control

4.2) Quantification - Primary and Secondary Geosynthetic Liners

Refer to Tables 1.5.A and 1.5.B for material procurement and/placement quantities. The following are estimated quantities for the construction contractor:

- Receiving, unloading, inspecting and storing geosynthetic liner material will take
 15 days over a period of two months. This activity will require 1 CAT TH83
 forklift, 1 operator and 2 laborers.
- Acceptance of the top of clay liner will require 2 surveyors for 1 day.
- Placement of the 3 secondary penetration boxes on the west side of the liner will take 12 days to complete. This activity will require 1 CAT 330 excavator,
 1 operator, 2 walk behind plate compactors, 2 laborers, and 2 pipefitters. This activity includes the excavation of the clay, installation and connection of the penetration boxes and hydro testing of the lines to valve house #7.

- Placement of the 3 primary penetration boxes on the west side of the liner will take 9 days to complete. This activity will require 1 posi-trac with bucket, 1 operator, 2 walk behind plate compactors, 2 laborers, and 2 pipefitters. This activity includes the excavation of the gravel, installation and connection of the penetration boxes and hydro testing of the lines to valve house #7.
- Deployment of the secondary GCL, GML and geotextile will take 15 days and will require 1 posi-trac, 1 CAT 563 smooth drum roller, 1 CAT TH83 forklift,
 2.5 operators and 10 laborers. Movement of the GCL, GML and geotextile from the storage area will be performed concurrently with deployment of the material.
- Installation of the secondary liner includes panel layout, welding, seaming, tie-in of
 penetration boxes to the liners, non-destructive testing, repair of GML and sewing
 of geotextile will be performed by a specialty contractor. The contractor cost will
 include labor, material and equipment for this work.
- Deployment of the primary GCL, GML and geotextile will take 15 days and will require 1 posi-trac, 1 CAT TH83 forklift, 2.5 operators and 10 laborers. Movement of the GCL, GML and geotextile from the storage area will be performed concurrently with deployment of the material.
- Installation of the primary liner includes panel layout, welding, seaming, tie-in of
 penetration boxes to the liners, non-destructive testing, repair of GML and sewing
 of geotextile which will be performed by the cell contractor. The contractor cost
 will include labor, material and equipment for this work.
- Leak detection testing of the primary GML will be performed by the cell contractor and will take 5 days. This activity will require 1 posi-trac, 1 operator, 2 laborers and a 2" gas powered pump.
- Placement of geotextile will be by the cell contractor. This activity will take 5 days and require 1 posi-trac, 1 CAT TH83 forklift, 2 operators and 6 laborers. The sewing of the geotextile will be by the specialty contractor.
- Location survey of the GML panels and seams will require 2 surveyors for one day.
- Trenching and placement of the secondary and primary liner terminations around the perimeter will take 5 days and require a CAT 330 excavator, 1 operator, 1 walk behind compactor and 2 laborers.
- 5) Task #5 Primary and Secondary Drainage Layers

Technical specification section 02605 and 02710)

5.1)

5.2) Plan/Scope - Primary and Secondary Drainage Layers

- Receiving, stockpiling and inspecting the #78 and #57 stone will occur south of OSDF liner #7. There will be two periods of stockpiling stone – 1 for the secondary and 1 for the primary.
- Placing drainage layer, installation of perforated HDPE pipe, and rolling and surveying of drainage layer surfaces
- Construction survey
- Dust control

5.3) Quantification - Primary and Secondary Drainage Layers

- Receiving, stockpiling and inspection of the #78 and #57 stone for the secondary layer will take 20 days and will require 1 CAT D8 LGP bulldozer, 1 operator and 1 laborer to act as a spotter
- Placement of the #78 and #57 stone and the perforated drainage pipe for the secondary layer will take 10 days. This activity will require 2 CAT D6 bulldozers, 1 CAT 966 loader, 1 CAT 563 smooth drum roller, 3 operators, 3 Volvo A-30 trucks, 3 teamsters, 2 pipefitters and 4 laborers. Of the 4 laborers, 1 will act as a spotter, 1 will act as a grade checker, 2 will work on grading of the stone. Handling of the pipe will be shared by these laborers.
- Receiving, stockpiling and inspection of the #78 and #57 stone for the primary layer will take 20 days and will require 1 CAT D8 LGP bulldozer, 1 operator and 1 laborer to act as a spotter
- Dust control will require 1 CAT 613 waterwagon (for 10 days) and 0.5 teamster.
- 6) Task #6 Construction of Perimeter Clay Wedges and Access Ramp
- 6.1) Pan/Scope Construction of Perimeter Clay Wedges and Access Ramp
- Traffic control at intersection of Borrow Area Haul Road and North Entrance Road is covered under Task 3 of this charge number.
- Load from OSDF Borrow Area stockpiles and haul to OSDF Cell #7 perimeter clay wedges

- Placement, compaction, maintenance and survey of the OSDF Cell #7 perimeter clay wedges
- Placement of sacrificial geomembrane
- Construction of OSDF Cell #7 access ramp
- Construction survey
- Dust control

6.2) Quantification - Construction of Perimeter Clay Wedges and Access Ramp

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Loading, hauling, placement and compaction of clay material for OSDF Cell #7
 perimeter wedges will take 10 days and require 1 CAT 330 excavator, 1 CAT 825
 sheep's foot roller, 1 CAT D6 bulldozer, 2.5 operators, 4 Volvo A-30 trucks, 1 CAT
 613 waterwagon, 5 teamsters and 2 laborers. This activity will also require 2
 surveyors for 1 day.
- Placement of the sacrificial geomembrane will take 2 days and will require
 4 laborers
- Construction of the OSDF Cell #7 Access Ramp will take 3 days and will require 1 CAT D6 bulldozer, 1 CAT 966 loader, 2 operators, 3 Volvo A-30 trucks, 3 teamsters, and 1 laborer. This activity will also require one water truck for 1.5 days and one teamster for 1.5 days.
- This activity will require 2 surveyors for 1 day

7) Task #7 - Catchment Area

Technical specification sections 02710 and 02714

7.1) Plan/Scope - Catchment Area

- Place and survey non-impacted granular layer and geotextile in the catchment area
- Construction survey

7.2) Quantification - Catchment Area

The following are estimated quantities for the construction contractor:

- Placement of the non-impacted granular layer and geotextile in the catchment area will require 1 CAT D6 LGP bulldozer, 1 operator, 2 Volvo A-30 trucks, 2 teamsters and 4 laborers.
- 8) Task #8 Video Inspection of HDPE Pipe

Technical specification section 02605

- 8.1) Plan/Scope Video Inspection of HDPE Pipe
- Video inspection of solid wall HDPE pipes for leachate detection system, leachate collection system, and redundant leachate collection system will be performed by a specialty contractor
- This activity covers the initial videotaping of leachate lines between valve houses and inlet boxes in Cell 7.
- 8.2) Quantification Video Inspection of HDPE Pipe

The following are estimated quantities for the construction contractor:

- Video inspection will take a specialty contractor 1 day with 2 technicians.
- 9) Task #9 Closeout
- 9.1) Plan/Scope Closeout
- Completion of project punchlist
- Final survey and redlines
- Demobilization
- 9.2) Quantification Closeout

Not applicable

1.5.14 CCPLK - OSDF Cell #7 Cap

The scope of work for this charge number is the construction of the OSDF Cell #7 cap which includes: submittals and procurement, site preparation, contouring layer, clay cap, geosynthetic cap, drainage layer, biointrusion barrier with choking layer, filter layer, vegetative layer, topsoil, vegetation and close-out.

Construction of Cell #7 cap will be performed by Fluor-Fernald, Inc. (self-performed) with the exception of the following activities: GML installation—panel layout, welding, seaming,

testing and repair of GML, sewing of geotextile and leak detection testing of GML. Specialty contractors will perform these activities the cell contractor.

- 1) Task #1 Submittals and Procurement
- 1.1) Subtask #1 Submittals
- 1.1)1 Plan/Scope Submittals

Prepare work plans, technical submittals and the submittal register. Work plans and technical submittals will be prepared by the cell contractor. Work plans include surface water management and erosion control plan, earthwork work plan, fugitive dust control, safe work plan, traffic control plan, project specific health and safety plan and QA plan. The construction schedule for Cell #7 cap will be prepared by the cell contractor.

1.1)2 Quantification - Submittals

Not applicable

- 1.2) Subtask #2 Procurement
- 1.2)1 Plan/Scope Procurement

The following material will be procured by Fluor Fernald, Inc. for the OSDF Cell #7 cap:

Material: GCL, GML with welding rod, geotextile.

Equipment: None.

Labor: None

Subcontractor/Services: None.

1.2)2 Quantification - Procurement

Not applicable

2) Task #2 - Site Preparation

Technical specification sections 02100, 02110, 02150, 02200, 02230, 02270, 02721

- 2.1) Plan/Scope Site Preparation
- Mobilization of equipment, perform safety checks, training, installation of surface
 water management and erosion controls, construction fence, verification of existing
 conditions (including field surveys), clearing and grubbing, excavation, and culvert
 installation

- Construction of an access/service road on the west side of the OSDF. This activity
 will require fill and gravel surfacing. The gravel will be delivered to the site from
 outside suppliers.
- Rework the drainage ditch on the west side of Cell #7
- Excavation of the sacrificial clay wedges and removal of 20 foot wide x 400 foot long OSDF haul road from the west side of the OSDF. Placement of impacted material into the OSDF from road removal is covered by CCPL3. Stockpiling of non-impacted material from road removal is covered under this charge number
- Extend the access corridor south of OSDF Cells #6 and #7 and tie in with the south entrance road
- Complete final alignment of the fence south of the OSDF.
- Dust control

2.2) Quantification - Site Preparation

The following are estimated quantities for the construction contractor:

- Mobilization of equipment will take 2 weeks and require 1 mechanic, and 1 superintendent
- Training, all labor must receive on-site training
- Relocation of Rad fencing will take 1 week and will require 2 laborers and 1,600 lf of fencing
- Construction of the access road/ service road on the west side of the OSDF will require 600 cy of fill. This activity will take 2 days and will require 1 CAT D6 bulldozer, 1 CAT 825 sheep's foot roller, 2 operators, 3 Volvo A-30 truck, 1 CAT 613 waterwagon (for 1 day for dust control), 3.5 teamsters and 1 laborer. This activity will require placement of 500 tons of #304 stone for the service road.
- Placement of the #304 stone for the access road/ service road will take 1 day and will require 5,200 CY of stone, 1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 2 operators, 1 CAT 613 waterwagon (for ½ day for dust control), 1 teamster (for ½ day) and 1 laborer.
- Rework of the 400 ft long V-drainage ditch on the west side of Cell #7 will take
 3 days and will require 2,000 cy of fill, 1 CAT 330 excavator, 1 CAT D6 bulldozer,
 1 CAT 563 smooth drum roller, 2 operators, 3 Volvo A-30 trucks, 1 CAT 613
 waterwagon (for .75 days), 3.25 operators and 1 laborer. Placement of riprap in

the ditch will take 2 days and will require 300 tons of type "D" riprap, 1 CAT 330 excavator, 1 CAT D6 bulldozer, 2 operators and 2 laborers

- Removal of the 20 foot wide x 400 foot long OSDF haul road from the west side of the OSDF and excavation of sacrificial clay wedge will take 5 days and will require
 1 CAT D6 LGP bulldozer, 1 CAT 330 excavator, 2 operators, 2 Volvo A-30 trucks,
 1 CAT 613 waterwagon (for dust control), 2.5 teamsters and 1 laborer
- Extension of the access corridor south of OSDF Cells #6 and #7 to tie in with the south entrance road will take 5 days and will require 1 CAT 330 excavator, 1 CAT D6 bulldozer, 1 CAT 825 sheep's foot roller, 1 CAT 563 smooth drum roller, 4 operators, 3 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 2.5 days), 3.5 teamsters and 1 laborer. The access road extension will be 1,200 lf and will require 2,000 cy of fill.
- Completion of the final alignment of the fence south of the OSDF will require removal of 2,400 If of chain link fence, installation of 2,400 If of new chain link fence and 2 gates. Removal of the existing fence will take 5 days and will require 1 CAT 416 backhoe, 1 operator and 4 laborers. Installation of the new fence and gates will take 5 days and will require 1 Bobcat with auger attachment, 2 ironworkers and 3 laborers.

3) Task #3 - Contouring Layer

Technical specification 02240

3.1) Plan/Scope - Contouring Layer

- Remove existing silt fence (two rows) from select impacted material layer
- Survey and verify top of the existing select impacted material layer
- Grade, recompact top of select layer
- Construct access ramp with non-impacted contouring layer material
- Place non-impacted material contouring layer
- Survey and verify non-impacted material contouring layer
- Surface water management and erosion control
- Dust control

3.2) Quantification - Contouring Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

 Removal of existing silt fence (two rows) from select impacted material layer will take 1 day and will require 1 CAT 416 Backhoe, 1 operator and 2 laborers.

- Surveying and verification of the top of the existing select impacted material layer will take 1 day and will require 2 surveyors.
- Grading and recompacting the top of the select layer will take 5 days and will require1 CAT D6 bulldozer, 1 CAT 563 smooth drum roller, 2 operators, 1 CAT 613 waterwagon (for dust control), 1 teamster and 2 laborers.
- Construction of the access ramp will take 2 days and will require 1 CAT 330 excavator, 1 CAT D6 LGP bulldozer, 1 CAT 825 sheep's foot roller, 3 operators, 6 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 1 day for dust control), 6.5 teamsters, and 1 laborer
- Placement of the non-impacted material contouring layer will take 10 days and will require 1 CAT 330 excavator, 1 CAT D6 LGP bulldozer, 1 CAT 825 sheep's foot roller (for 5 days), 2.5 operators, 6 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 5 days for dust control), 6.5 teamsters and 2 laborers.
- Survey and verification of the top of the contouring layer will take 1 day and will require 2 surveyors for 1 day.

4) Task #4 - Clay Cap

Technical specification section 02225

4.1) Plan/Scope - Clay Cap

- Maintain the Borrow Area Haul Road
- Provide traffic control at intersection of Borrow Area Haul Road and North Entrance Road. This activity consists of installing stop signs and removing stop signs after completion of hauling of the material from the Borrow Area.
- Excavate, load and haul clay cap material from OSDF Borrow Area stockpiles and haul to OSDF Cell #7 cap
- Placement, compaction, maintenance and survey of the clay surface. The clay cap
 will be overbuilt 0.1" to 0.3" to allow for possible desiccation cracking of the clay
 surface. Approximately 0.1" to 0.2" of the excess material will be removed as
 installation of GCL progresses from east to west.
- Construction survey
- Dust control

4.2) Quantification - Clay Cap

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Excavation, loading and hauling of the clay from the Borrow Area stockpiles will take 20 days and will require 1 CAT 330 excavator, 1 operator, 6 Volvo A-30 trucks and 6 teamsters
- Placement, compaction of 18,000 ICY of clay will take 20 days and will require 1 CAT D6 LGP bulldozer, 1 CAT SS250 soil stabilizer, 1 CAT 563 smooth drum roller, 1 CAT 825 sheep's foot roller, 3.5 operators, 1 CAT 613 waterwagon (for dust control), 1 teamster, and 3 laborers
- Removal of excess clay will require 1 CAT D8 LGP bulldozer, 1 CAT 330 excavator, 1 CAT 563 smooth drum roller, 2.5 operators, 2 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), and 3 teamsters. This activity will take 5 days.
- Survey of the finished clay surface will require 2 surveyors for 1 day.

5) Task #5 - Geosynthetic Cap

Technical specification sections 02714, 02770 and 02772

5.1) Plan/Scope - Geosynthetic Cap

- Receiving, unloading, inspecting, storing geosynthetic cap materials (GCL, GML and geotextile)
- Top of clay liner surface acceptance by Fluor Fernald, GML specialty contractor, and CQC consultant
- GCL, GML and geotextile deployment
- Panel layout, welding, seaming, non-destructive GML testing and repair of GML to be performed by the cell contractor. Sewing of geotextile to be performed by the cell contractor. Movement of the GCL, GML and geotextile from the storage area will be performed concurrently with deployment of the material.
- Leak detection testing of GML by specialty contractor.
- Location survey of GML panels and seams will be performed by the cell contractor
- Construction survey
- Dust control

5.2) Quantification - Geosynthetic Cap

Refer to Tables 1.5.A and 1.5.B for material procurement and/placement quantities. The following are estimated quantities for the construction contractor:

- Receiving, unloading, inspecting and storing geosynthetic liner material will take
 8 days over a period of one month. This activity will require 1 CAT TH83 forklift,
 1 operator and 2 laborers.
- Acceptance of the top of clay liner will require 2 surveyors for 1 day.
- Deployment of the GCL, GML and geotextile will take 17 days and will require 1 posi-trac, 1 CAT 563 smooth drum roller, 1 CAT TH83 forklift, 2.5 operators and 10 laborers. Installation of the liner includes panel layout, welding, seaming, non-destructive testing, repair of GML and sewing of geotextile.
- Leak detection testing of the GML will be performed by the cell contractor and will take 5 days. This activity will require 1 posi-trac, 1 operator, 2 laborers and a 2" gas powered pump.
- Placement of geotextile will be by the cell contractor. This activity will take 5 days and require 1 posi-trac, 1 CAT TH83 forklift, 2 operators and 6 laborers. The sewing of the geotextile will be by the cell contractor.
- Location survey of the GML panels and seams will require 2 surveyors for one day.
- 6) Task #6 Drainage Layer

Technical specification section 02710

- 6.1) Plan/Scope Drainage Layer
- Receiving, stockpiling and inspecting the #78 stone will occur west of OSDF Cell #7.
- Placing drainage layer, rolling and surveying of drainage layer surface
- Construction survey
- Dust control
- 6.2) Quantification Drainage Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Receiving, stockpiling and inspection of 32,000 tons of #78 stone for the drainage layer will take 25 days and will require 1 CAT D8 LGP bulldozer, 1 operator and 1 laborer to act as a spotter.
- Placement of the #78 stone will take 20 days. This activity will require 2 CAT D6 bulldozers, 1 CAT 966 loader, 1 CAT 563 smooth drum roller, 3 operators, 4 Volvo A-30 trucks, 4 teamsters, and 2 laborers.
- Construction survey will require 2 surveyors for 1 day.
- Dust control for receiving and placement will require 1 CAT 613 waterwagon (for 11 days) and 0.5 teamster.

7) Task #7 - Biointrusion Barrier

Technical specification section 02280

7.1) Plan/Scope - Biointrusion Barrier

- Receiving, unloading, inspecting and storing biointrusion barrier and choke stone materials
- Survey and verify top of drainage layer elevation prior to placement of biointrusion barrier.
- Place biointrusion barrier and choke stone
- Dust control

7.2) Quantification - Biointrusion Barrier

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Receiving, stockpiling and inspection of 57,000 tons of riprap for the biointrusion-barrier and 4,500 tons of choke stone will take 40 days and will require 1 CAT D8 LGP bulldozer, 1 operator, 1 CAT 613 waterwagon (for 10 days for dust control), 0.25 teamster, and 1 laborer to act as a spotter.
- Verification and survey of the top of the drainage layer will take 1 day and will require 2 surveyors.
- Placement of the riprap and choke stone will take 30 days. This activity will require 2 CAT D8 LGP bulldozers, 1 CAT 966 loader, 1 CAT 330 excavator, 1 CAT

563 smooth drum roller, 4.5 operators, 4 Volvo A-30 trucks, 1 CAT 613 waterwagon (for dust control), 4.5 teamsters, and 2 laborers.

8) Task #8 - Filter Layer

Technical specification section 02712

8.1) Plan/Scope - Filter Layer

- Receive and stockpile filter layer material (sand) from off site supplier.
- Survey and verify top of biointrusion barrier elevation prior to placement of filter layer.
- Loading, hauling, and placement of the filter layer material
- Dust control

8.2) Quantification - Filter Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Receiving and stockpiling 12,000 tons of filter layer material will take 12 days and will require 1 CAT D8 bulldozer, 1 operator, 1 CAT 613 waterwagon (for 3 days for dust control), 0.25 teamster and 1 laborer.
- Survey of the biointrusion barrier will take 1 day and will require 2 surveyors.
- Loading, hauling, and placement of the filter layer material will take 10 days and will require 1 CAT D6 LGP bulldozer, 1 CAT 966 loader, 2 operators, 4 Volvo A-30 trucks, 1 CAT 613 waterwagon (for 3 days), 4.25 teamsters, and 1 laborer.

9) Task #9 - Vegetative Layer

Technical specification section 02930

9.1) Plan/Scope - Vegetative Layer

- Maintain the Borrow Area Haul Road
- Survey and verify top of filter layer elevation prior to placement of the vegetative layer.

- Load vegetative layer material from OSDF Borrow Area stockpiles and haul to OSDF
 Cell #7
- Placement of the vegetative layer
- Dust control

9.2) Quantification - Vegetative Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon (for dust control), 1 operator and 1 teamster. Because the work is intermittent (less than 2 hours per week during cap construction) labor and equipment will be used on an as needed basis and taken from the vegetative layer construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the vegetative layer activity.
- Survey of the top of filter layer elevation will require 2 surveyors for 1 day.
- Loading of vegetative layer material from the Borrow Area stockpiles will require 1 CAT 330 excavator and 1 operator. Hauling of the material will require 6 Volvo A-30 trucks and 6 teamsters. The activity will take 20 days to complete. Dust control will be performed by the CAT 613 waterwagon and the teamster covered by the Borrow Area Development (charge number CCPL2).
- Placement of the vegetative layer will take 20 days to complete and will require
 1 CAT D6 low-ground pressure bulldozers, 1 CAT 825 sheep's foot roller, 1 CAT
 563 smooth drum roller, 4 operators, 1 CAT 613 waterwagon, and 1 teamster, and
 3 laborers.

10) Task #10 - Topsoil Layer

Technical specification section 02920

10.1) Plan/Scope - Topsoil Layer

- Maintain the Borrow Area Haul Road
- Survey and verify top of vegetative layer elevation prior to placement of the topsoil layer.
- Load topsoil layer material from OSDF Borrow Area stockpiles and haul to OSDF
 Cell #7

- Placement of the topsoil layer
- Dust control

10.2) Quantification - Topsoil Layer

Refer to Table 1.5.C for material excavated/placed quantities. The following are estimated quantities for the construction contractor:

- Maintaining the Borrow Area haul road will require intermittent use of 1 CAT D6 bulldozer, 1 CAT 613 waterwagon (for dust control), 1 operator and 1 teamster. Because the work is intermittent (less than 2 hours per week during liner construction) labor and equipment will be used on an as needed basis and taken from the topsoil layer construction activity. Therefore, costs associated with maintaining the borrow area haul road are included in the topsoil layer activity.
- Survey of the top of vegetative layer elevation will require 2 surveyors for 1 day.
- Loading of topsoil layer material from the Borrow Area stockpiles will require 1 CAT 330 excavator and 1 operator. Hauling of the material will require 6 Volvo A-30 trucks and 6 teamsters. The activity will take 2 days to complete. Dust control will be performed by the CAT 613 waterwagon (for dust control) and the teamster covered by the Borrow Area Development (charge number CCPL2).
- Placement of the topsoil layer will require 1 CAT D6 low-ground pressure bulldozers, 1 CAT 825 sheep's foot roller, 1 CAT 563 smooth drum roller, 4 operators, 1 CAT 613 waterwagon (for dust control), and 1 teamster, and 3 laborers.

11) Task #11 - Permanent Vegetation

Technical specification section 02930

11.1) Plan/Scope - Permanent Vegetation

 Plant permanent vegetation on the Cell #7 final cover including seeding and erosion mat

11.2) Quantification - Permanent Vegetation

The following are estimated quantities for the construction contractor:

 Permanent vegetation and installation of erosion mat will take 15 days and will require 1 CAT D6 bulldozer, 1 farm tractor with disc, 1 mechanical seed drill,

PBS-03, ON-SITE DISPOSAL FACILITY PROJECT CLOSURE PLAN BASIS OF ESTIMATE 20100-PL-0023, Revision 1 September 2001

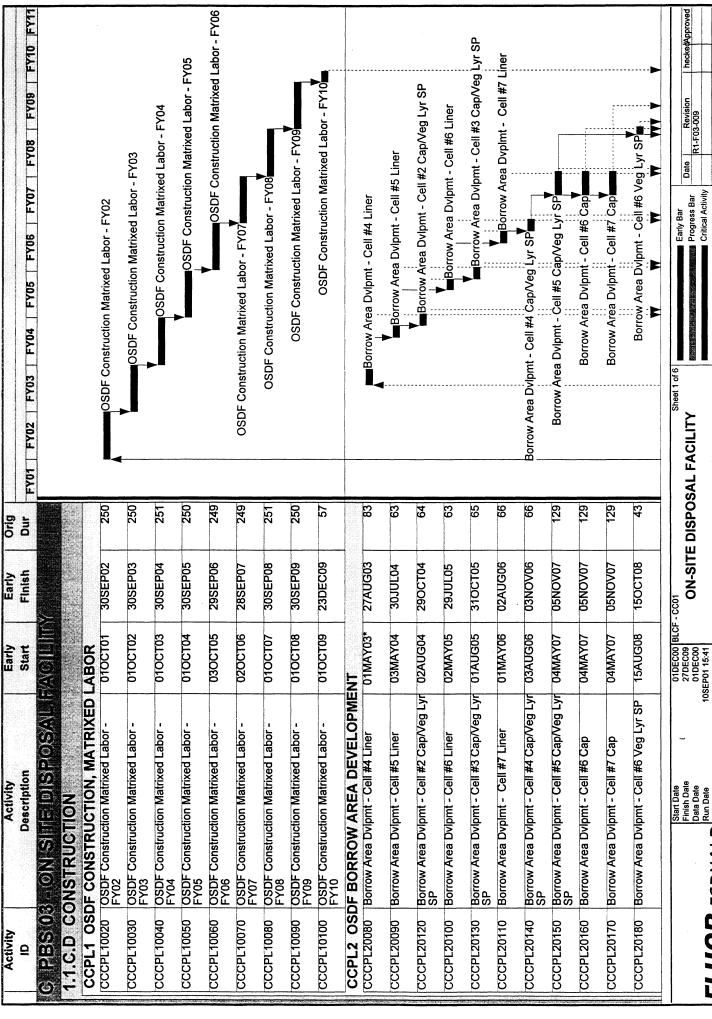
1 operator, 1 CAT 613 waterwagon (for dust control), 1 teamster, and 5 laborers. Cell #7 final cover surface that will require permanent vegetation is 7.25 acres

- 12) Task #12 Closeout
- 12.1) Plan/Scope Closeout
- Completion of project punchlist
- Final survey and redlines
- Demobilization
- 12.2) Quantification Closeout

Not applicable

SECTION 4

2.0 SCHEDULE

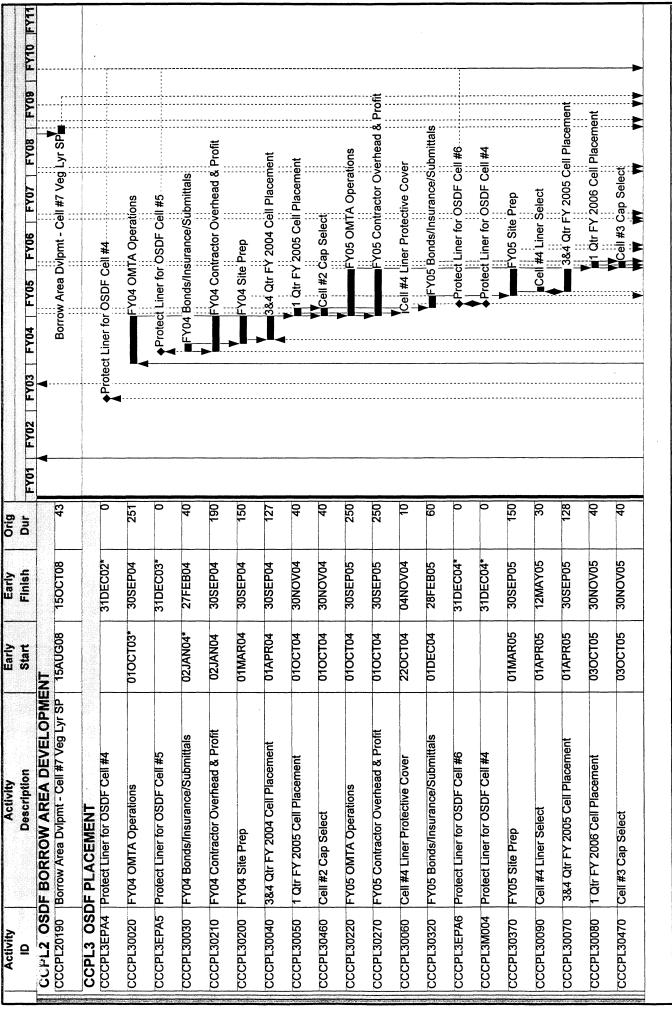


1.1.C.D CONSTRUCTION

Critical Activity

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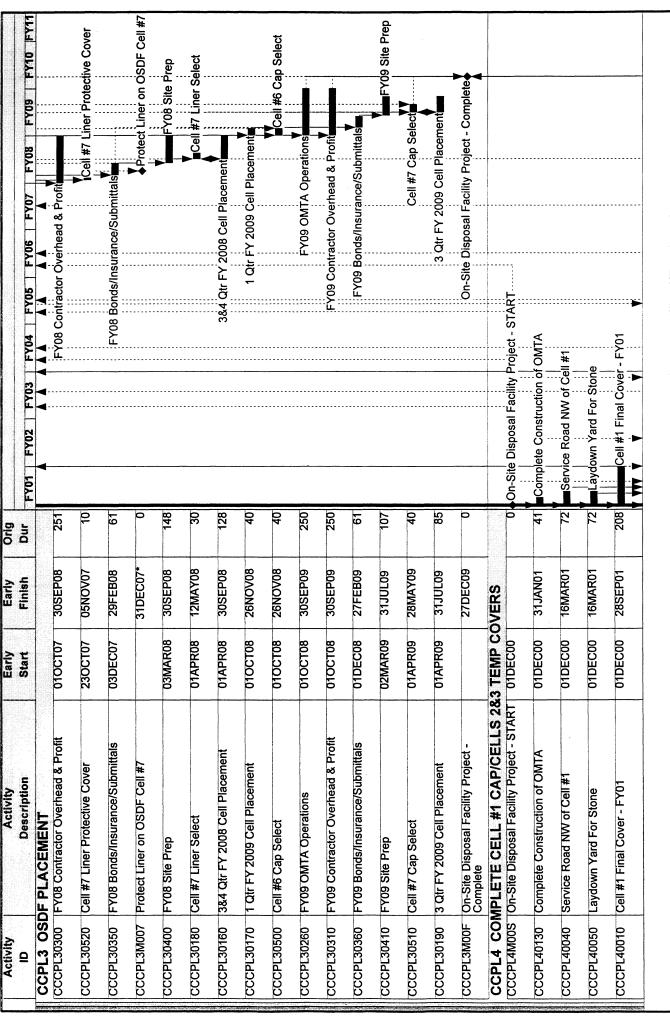
Early Bar

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Activity Activity Description	Early Start	Early Orig Finish Dur	FY01 FY02 FY03 FY04 FY05 FY07 FY08 FY09 FY10 FY11
CCPL3 OSDF PLACEMENT			
CCCPL30230 FY06 OMTA Operations	03OCT05	29SEP06 2	249 FY06 OMTA Operations
CCCPL30280 FY06 Contractor Overhead & Profit	03OCT05	29SEP06 2	249 FY06 Contractor Overhead & Profit
CCCPL30430 Cell #5 Liner Protective Cover	28OCT05	10NOV05	TO Cell #5 Liner Protective Cover
CCCPL30330 FY06 Bonds/Insurance/Submittals	01DEC05	28FEB06	60 FY06 Bonds/Insurance/Submittals
CCCPL3EPA7 Protect Liner on OSDF Cell #7		31DEC05*	□ ♦ Protect Liner on OSDF Cell #7
CCCPL3M005 Protect Liner for OSDF Cell #5		31DEC05*	Φ Protect Liner for OSDF Cell #5
CCCPL30380 FY06 Site Prep	01MAR06	29SEP06 1	49 FY06 Site Prep
CCCPL30440 Cell #5 Liner Select	03APR06	15MAY06	30 Cell #5 Liner Select
CCCPL30100 3&4 Qtr FY 2006 Cell Placement	03APR06	29SEP06 1	226 38.4 Qtr FY 2006 Cell Placement
CCCPL30110 1 Qtr FY 2007 Cell Placement	02OCT06	30NOV06	41 Otr FY 2007 Cell Placement
CCCPL30480 Cell #4 Cap Select	02OCT06	30NOV06	41 Cell #4 Cap Select
CCCPL30240 FY07 OMTA Operations	02OCT06	28SEP07 2	249 FY07 OMTA Operations
CCCPL30290 FY07 Contractor Overhead & Profit	02OCT06	28SEP07 2	FY07 Contractor Overhead & Profit
CCCPL30120 Cell #6 Liner Protective Layer	24OCT06	06NOV06	10
CCCPL30340 FY07 Bonds/Insurance/submittals	01DEC06	28FEB07	60 FY07 Bonds/Insurance/submittals
CCCPL3M006 Protect Liner for OSDF Cell #6		31DEC06*	A Protect Liner for OSDF Cell #6
CCCPL30390 FY07 Site Prep	01MAR07	28SEP07 1	748 FY07 Site Prep
CCCPL30450 Cell #6 Liner Select	02APR07	14MAY07	30 Cell #6 Liner Select
CCCPL30130 3&4 Qtr FY 2007 Cell Placement	02APR07	28SEP07	3&4 Qtr FY 2007 Cell Placement
CCCPL30140 1 Qtr FY 2008 Cell Placement	010CT07	30NOV07	42 Ctr FY 2008 Cell Placement
CCCPL30490 Cell #5 Cap Select	01OCT07	30NOV07	42 Cell #5 Cap Select
CCCPL30250 FY08 OMTA Operations	01OCT07	30SEP08 2	257 FYOB OMTA Operations
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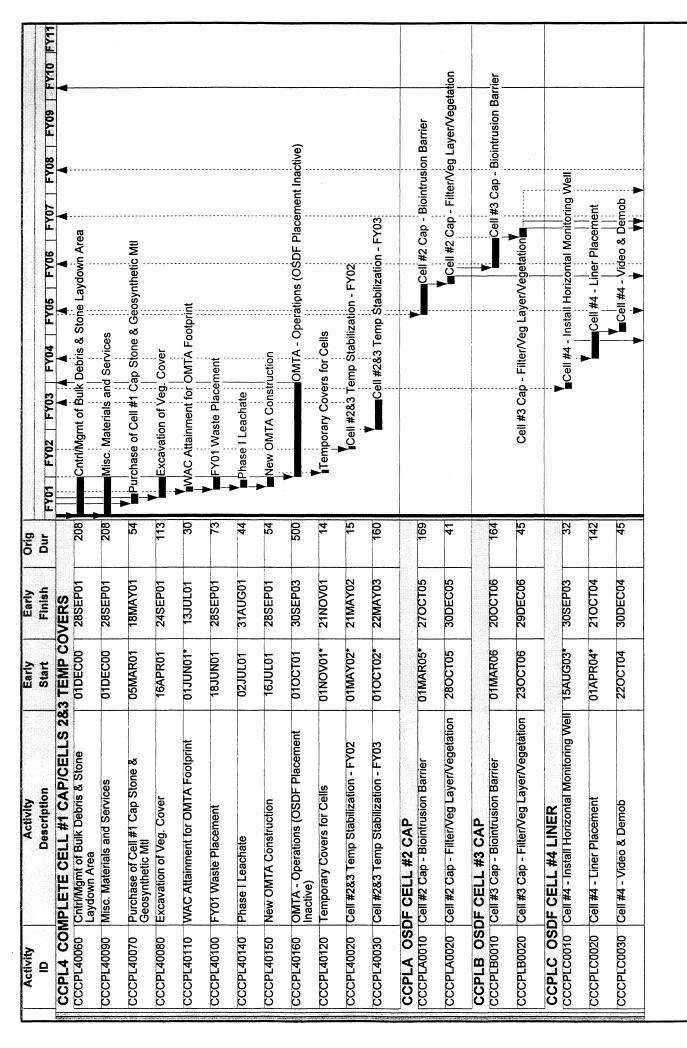
ON-SITE DISPOSAL FACILITY 1.1.C.D CONSTRUCTION

Progress Bar

Critical Activity

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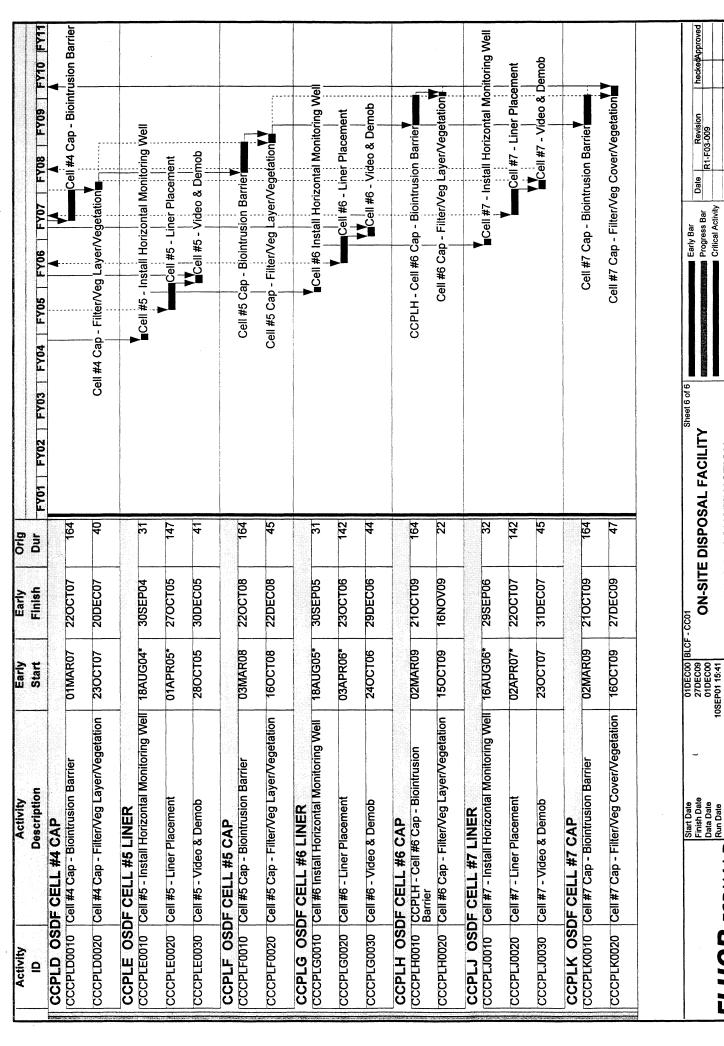
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ON-SITE DISPOSAL FACILITY 1.1.C.D CONSTRUCTION

■ Early Bar
■ Progress Bar
■ Critical Activity

Date

R1-F03-009



ON-SITE DISPOSAL FACILITY 1.1.C.D CONSTRUCTION

Early Bar

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SECTION 4 3.0 MANPOWER PLANS

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Manpower Planning Sheet (CR2)

MPS # 1CD03 OSDF CONSTRUCTION MATRIXED LABOR

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302 OSDF CELL 1 - Cap	11/09/2000	09/28/2001		XX XX	XX XXX XXX XX	×××																		
303 OSDF CELL 2 - Cap	03/01/2005	12/30/2005			•													^	Š	Ŝ	XXX XXX X			
305 OSDF CELL 3 - Cap	03/01/2006	12/29/2006																					XXX XXX	×
306 OSDF CELL 4 - Site Prep and Liner	08/15/2003	12/30/2004											×	×	XX XXX XXX XXX XXX	×	×	Ų						
308 OSDF CELL 4 - Cap	03/01/2007	12/20/2007																						
309 OSDF CELL 5 - Site Prep and Liner	08/18/2004	12/30/2005														×	XXX XXX XXX XXX XX	ŝ	Š	ŝ	×			
311 OSDF CELL 5 - Cap	03/03/2008	12/22/2008																						
312 OSDF CELL 6 - Site Prep and Liner	08/18/2005	12/29/2006																		2	×	XXX XXX XXX XX	X	×
314 OSDF CELL 6 - Cap	03/02/2009	11/16/2009																						
315 OSDF Monitoring & Maintenance	10/02/2000	12/23/2009	^	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XXX	XX	XXX	XXX XX	XX	XX	×	×	X	×	×××	×	- X	ŝ	8	ŝ	×	×	×	×
317 WASTE ACCEPTANCE ORGANIZATION	N 10/01/2003	09/30/2009												×	*** *** *** *** *** *** *** *** ***	×	×	ŝ	ŝ	ŝ	×	X	Š	×
318 Interim Cap for Cells 2&3	11/01/2001	11/21/2001					×																	
319 OSDF CELL 7 - Liner	08/16/2006	12/31/2007																						×
320 OSDF CELL 7 - Cap	03/02/2009	12/23/2009																						
321 OSDF Cell Placement	10/01/2003	06/30/2009				_							- 🔀	S	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	×	-	ŝ	×	Š	××	XX	×	×
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Environmental En	Environmental Scientist Tech.	ech.	4.00	0	0	0	0	0	-	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1		0.1	1.0.1		0	0.3	0.3
Maintenance	Maintenance Rep.		3.90	0	0	0	0.1	0 0.1	-2-	0.1	0	0.1	0.1	1.0	0	0.1	0.1		0 0.1	0.1		0.1	0.2	0.2
	Shee	Sheet Totals:	152.50	4.00 4.00	0.4	3.00	2.10 0.00	00 0.10	0.10	0.20	0.20	1.90	1.90 2	2.40 0	0.10 4.40 4.40	4.4	ı	4.40 1.00	0 5.10	0 5.10		6.00 1.10 9.50	1	9.50

Manpower Planning Sheet (CR2)

MPS # 1CD03 OSDF CONSTRUCTION MATRIXED LABOR

			:														
			≧ 3	FY 2007	1;	FY 2008		- 6	FY 2009		4	FY 2010		7	FY 2011		
URIVERS	START DATE	END DAIE	5	W1 W2 W3	3	מו מק מ	3	3	u1 u2 u3	25.02	5	u1 u2 u3	\$	2	Q1 Q2 Q3	2	
301 OSDF Summary Schedule	04/01/2004	12/23/2009	XXX	XX XX	xxx	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XX XX	×	XX	XX XX	×××						
302 OSDF CELL 1 - Cap	11/09/2000	09/28/2001															
303 OSDF CELL 2 - Cap	03/01/2005	12/30/2005															
305 OSDF CELL 3 - Cap	03/01/2006	12/29/2006	××														
306 OSDF CELL 4 - Site Prep and Liner	08/15/2003	12/30/2004															
308 OSDF CELL 4 - Cap	03/01/2007	12/20/2007		xxx xxx x	XX	XX											
309 OSDF CELL 5 - Site Prep and Liner	08/18/2004	12/30/2005															
311 OSDF CELL 5 - Cap	03/03/2008	12/22/2008				×	xxx xxx x	×									
312 OSDF CELL 6 - Site Prep and Liner	08/18/2005	12/29/2006	XX														
314 OSDF CELL 6 - Cap	03/02/2009	11/16/2009							×	xx xxx xxx x	×						
315 OSDF Monitoring & Maintenance	10/02/2000	12/23/2009	XXX	XX XX	XX	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XX XX	×	XXX	XX XX	XX						
317 WASTE ACCEPTANCE ORGANIZATION	N 10/01/2003	09/30/2009	XXX	XX XX	XX	XXX XXX XXX XXX XXX XXX XXX XXX XXX XX	XX XX	××	XXX	XX XX	~						
318 Interim Cap for Cells 2&3	11/01/2001	11/21/2001								٠							
319 OSDF CELL 7 - Liner	08/16/2006	12/31/2007	XXX	XXX XXX XXX XXX	XX	××											
320 OSDF CELL 7 - Cap	03/02/2009	12/23/2009							×	XXX XXX X	XX						
321 OSDF Cell Placement	10/01/2003	06/30/2009	X XX	XX XX	×××	*** *** *** *** *** *** *** *** *** **	XX XX	×	XX	×							
Environmental Safety & Health Rad Tech	Fech		6		6	3 1	က		-	8	2 0	0	0	0	0	0	0
QA/QC	QA/QC Tech.		က	0	<u>е</u>	2 0	က		2 0	7	•	0		•	0	0	0
Environmental	Environmental Scientist Rep.	Rep.	-	0	-	-	-	<u> </u>	•	-	•	0	0	-	0	0	0
Environmental Safety & Health Safety	Safety Engineer		-	0	-	-	-	_	-	0.5	0.5 0	0		0	0	0	0
Environmental Safety & Health Indust	Industrial Hygienist		-	0	-	- 0	-	-	•	0.3 0	0.3 0	0		0	0	0	0
Environmental Enviro	Environmental Scientist Tech	Tech.	0.3	0 0.3	0.3	0.3 0	0.3 0	0.3 0.3	0	0.1 0	0.1 0	0	0	0	0	0	0
Maintenance	Maintenance Rep.		0.2	0.2 0.2	0.2	0.2 0.2	0.2 0	0.2 0.2	2 0.1	0.1	0.1	0		-	0	0	0

Sheet Totals:

SECTION 4 4.0 ESTIMATE

CCPL1 OSDF CONSTRUCTION, MATRIXED LABOR

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	03		正	Fluor Fe	Fernald,	, Inc.				DATE:		05-Sep-01
WBS: 1.1.C.D CTRL ACCT: CCPL CHARGE NO: CCPL1 COMMENT NO N/A	1			ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	TIMATE SUPPORT WORKSHE R ACTIVITY BASED ESTIMATI (1 FTE EQUALS 1747 HOURS)	HEET (TING (S)				PROJI CAM: PREP, FISCA	PROJECT MGR. JD Chiou CAM: JD Chiou PREPARED BY: W. F. Fick FISCAL YEAR: 2002-2009	ou ou ick 009
Resource: ENSREP Res Dept: 949	EP ENVIR SCIENCE REP Overtime:		EOC: Class: SAL	LABOR	ĸ							
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Oct 00- Sep 01 0.0 0.0 0	Oct 01- Sep 02 0.0 0.0 0	Oct 02- Sep 03 132.6 132.6 6,203	Oct 03- Sep 04 130.4 263.0 6,460 12,663	Oct 04- Sep 05 131.2 394.2 6,885 19,548	Oct 05- Sep 06 1,552.0 1,946.2 87,012 106,560	Oct 06- Sep 07 1,672.0 3,618.2 101,622 208,182	Oct 07- Sep 08 1,671.0 5,289.2 107,046	Oct 08- Sep 09 1,424.0 6,713.2 101,374 416,602	Oct 09- Sep 10 0.0 6,713.2 0		
Resource: ENSTEC Res Dept: 949	EC ENVIR SCIENTIST TECH Overtime:		EOC: Class: SAL	LABOR	κ							
Yr Hours: Cum Hours: Yr Total Gost: Cum Total Cost:	Oct 00- Sep 01 0.0 0.0	Oct 01- Sep 02 0.0 0.0 0	Oct 02- Sep 03 174.7 174.7 5,516	Oct 03- Sep 04 130.4 305.1 4,360 9,876	Oct 04- Sep 05 131.2 436.3 4,647 14,523	Oct 05- Sep 06 386.8 823.1 14,636 29,159	Oct 06- Sep 07 501.6 1,324.7 20,576 49,735	Oct 07- Sep 08 501.3 1,826.0 21,675 71,410	Oct 08- Sep 09 250.6 2,076.6 12,041 83,451	Oct 09- Sep 10 0.0 2,076.6 83,451		
Resource: INDHYG Res Dept: 949	G INDUSTRIAL HYGIENIST Overtime:		EOC: Class: SAL	LABOR	Œ							
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Oct 00- Sep 01 0.0 0.0	Oct 01- Sep 02 0.0 0.0 0	Oct 02- Sep 03 88.3 88.3 4,570	Oct 03- Sep 04 130.4 218.7 7,147 11,716	Oct 04- Sep 05 316.2 534.9 18,357 30,073	Oct 05- Sep 06 1,276.2 1,811.1 79,155 109,228	Oct 06- Sep 07 1,672.0 3,483.1 112,423 221,651	Oct 07- Sep 08 1,110.0 4,593.1 78,666 300,317	Oct 08- Sep 09 805.9 5,399.0 63,470	Oct 09- Sep 10 0.0 5,399.0		
Resource: MNTREP Res Dept: 949	EP MAINTENANCE REP Overlime:		EOC: Class: SAL	LABOR	œ							
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Oct 00- Sep 01 0.0 0.0	Oct 01- Sep 02 131.1 131.1 4,795 4,795	Oct 02- Sep 03 130.4 261.5 5,052 9,847	Oct 03- Sep 04 130.4 391.9 5,350 15,197	Oct 04- Sep 05 131.2 523.1 5,702 20,899	Oct 05- Sep 06 314.5 837.6 14,603 35,502	Oct 06- Sep 07 421.4 1,259.0 21,211 56,713	Oct 07- Sep 08 421.4 1,680.4 22,357 79,069	Oct 08- Sep 09 240.8 1,921.2 14,197 93,266	Oct 09- Sep 10 0.0 1,921.2 0		
Resource: QACTEC Res Dept: 949	G QA/QC TECH Overtime:	Ca	EOC: Class: SAL	LABOR	œ							

Page 2 of 2

Oct 07- Oct 08- Oct 09- Sep 08 Sep 00 Sep 10 4,471.0 2,407.0 0.0 18,808.0 21,215.0 21,215.0 210,786 126,106 0 798,899 925,005 925,005		Oct 07- Oct 08- Oct 09- Sep 08 Sep 09 Sep 10 5,449.0 3,832.0 0.0 21,097.8 24,929.8 24,929.8 283,515 221,568 0 993,270 1,214,838		Oct 07- Oct 08- Oct 09- Sep 08 Sep 09 Sep 10 1,671.0 982.5 0.0 6,868.5 7,851.0 7,851.0 126,818 82,863 0 462,752 545,614 545,614	Oct 07- Oct 08- Oct 09-	Sep 08 Sep 10 Sep 10 15,294,7 9,942.8 0.0 60,163.0 70,105.8 70,105.8 850,862 621,619 0 3,020,944 3,642,564 3,642,564
Oct 06- Sep 07 5,016.0 14,337.0 224,362 588,113		Oct 06- Sep 07 5,451.0 15,648.8 269,086 709,755		Oct 06- Sep 07 1,672.0 5,197.5 120,391 335,934	Oct 06-	Sep 07 16,406.0 44,868.3 869,671 2,170,083
Oct 05- Sep 06 4,262.0 9,321.0 175,851 363,751		Oct 05- Sep 06 4,697.0 10,197.8 213,882 440,670		Oct 05- Sep 06 1,355.0 3,525.5 89,999 215,543	Oct 05-	Sep 06 13,843.5 28,462.3 675,137 1,300,412
Oct 04- Sep 05 2,430.5 5,059.0 93,863 187,900	LABOR	Oct 04- Sep 05 3,059,0 5,500,8 130,377 226,788	LABOR	Oct 04- Sep 05 656.0 2,170.5 40,782	Oct 04-	Sep 05 6,855.3 14,618.8 300,613 625,275
Oct 03- Sep 04 1,745.5 2,628.5 63,637 94,037	٠.	Oct 03- Sep 04 2,020.8 2,441.8 81,308 96,411		Oct 03- Sep 04 652.0 1,514.5 38,265 84,762	Oct 03-	Sep 04 4,939.9 7,763.5 206,527 324,662
Oct 02- Sep 03 883.0 883.0 30,400	EOC:	Oct 02- Sep 03 0.0 421.0 0	EOC:	Oct 02- Sep 03 441.5 862.5 24,469	Oct 02-	Sep 03 1,850.5 2,823.6 76,209 118,135
Oct 01- Sep 02 0.0 0.0 0.0 0	Class:	Oct 01- Sep 02 421.0 421.0 15,102	Class:	Oct 01- Sep 02 421.0 421.0 22,028 22,028	Oct 01-	Sep 02 973.1 973.1 41,926 41,926
Oct 00- Sep 01 0.0 0.0	RAD TECH Overtime:	Oct 00- Sep 01 0.0 0.0	SAFETY ENGINEER Overtime:	Oct 00- Sep 01 0.0 0.0	Oct 00-	Sep 01 0.0 0.0 0
: .st: .cost:	RADTEC 949	ist: Sost:	S&HENG 949	st: .ost:	TALS:	st: ost:
Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Resource: Res Dept:	Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:	Resource: Res Dept:	Yr Hours: Cum Hours: Yr Total Cost. Cum Total Cost.	GRAND TOTALS:	Yr Hours: Cum Hours: Yr Total Cost: Cum Total Cost:

CCPL2 OSDF BORROW AREA DEVELOPMENT

												10:55 AM
PBS:	OHFN03				Fluor Fernald, Inc.	ernal	a, Inc.				DATE:	05-Sep-01
WBS: 1.1.C.D CTRL ACCT: CCPL CHARGE NO: CCPL2 COMMENT NO F03-009	1.1.C.D CCPL CCPL2 D F03-009				ESTIMATE (FOR ACTIVI (1 FTE E	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	(SHEET MATING URS)				PROJECT CAM: PREPARE FISCAL YE	PROJECT MGR: JD Chiou CAM: JD Chiou PREPARED BY: W. F. Fick FISCAL YEAR: 2003-2009
Resource: Res Dept:	FIELDSUB 949	FIELD SUBS Overtime:	์	El El Class: Si	EOC: SI	SUBCONTRACTORS	RS					
Yr Units: Cum Units: Yr Total Cost: Cum Total Cost:	٠	Oct 00- Sep 01 0.0 0.0	Oct 01- Sep 02 0.0 0.0	Oct 02- Sep 03 900,800.0 900,800.0 950,100	Oct 03- Sep 04 2,078,531.9 2,979,331.9 2,253,672 3,203,772	Oct 04- Sep 05 1,836,142.4 4,815,474.3 2,046,602 5,250,374	Oct 05- Sep 06 1,820,278.0 6,635,752.3 2,087,758 7,338,132	Oct 06- Sep 07 1,839,560.2 8,475,312.4 2,171,060 9,509,192	Oct 07- Sep 08 1,107,364.3 9,582,676.8 1,344,819 10,854,011	Oct 08- Sep 09 250,723.3 9,833,400.0 313,316 11,167,328	Oct 09- Sep 10 0.0 9,833,400.0 0	
GRAND TOTALS: Yr Total Cost: Cum Total Cost:	I'S:	Oct 00- Sep 01 0	Oct 01- Sep 02 0	Oct 02- Sep 03 950,100 950,100	Oct 03- Sep 04 2,253,672 3,203,772	Oct 04- Sep 05 2,046,602 5,250,374	Oct 05- Sep 06 2,087,758 7,338,132	Oct 06- Sep 07 2,171,060 9,509,192	Oct 07- Sep 08 1,344,819 10,854,011	Oct 08- Sep 09 313,316 11,167,328	Oct 09- Sep 10 0 11,167,328	
САМ		194-9A					CONTROL TEAM.	AM MA			ı	

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Fluor Fernald, Inc.

PROJECTS CONTROLS ESTIMATING SERVICES

May 16, 2001

PROJECT DESCRIPTION: Baseline OSDF Borrow Area

WBS NUMBER: 1.1.C.D

PROJECT ENGINEER: C. Van Arsdale

ESTIMATOR: R. Smolin

ESTIMATE NUMBER: C2-2001-005-07-23

C2-2001-005-07-24 C2-2001-005-07-25 C2-2001-005-07-26 C2-2001-005-07-27 C2-2001-005-07-28 C2-2001-005-07-29

BASIS OF ESTIMATE

SUPPORTING DOCUMENTATION:

Verbal Scope	\boxtimes	P & ID's		Work Plan	
Drawings		Equipment List		Site Walk	
Sketches		Specifications		Eng. Mtg.	\boxtimes
Flow Diagrams		Written Scope	\square	Estimate	

TYPE OF ESTIMATE:

Change Proposal		Government	
Plan/Feasibility		Conceptual	
Construction		Title I Design	
Budget	\boxtimes	Independent	

BASIS OF ESTIMATE:

These seven estimates present the baseline cost for construction of the OSDF Borrow Area. The last digit of the estimate number above refers to the FY. The included scope is from the Baseline Closure Plan and associated supporting documents. Durations are from the OSDF schedules and are presented in Appendix D. Control and Management is not included in these estimates; it is, however, included in a separate C & M estimate.

Fluor Fernald, Inc. PROJECTS CONTROLS ESTIMATING SERVICES

May 16, 2001

PROJECT DESCRIPTION: Baseline OSDF Borrow Area

WBS NUMBER: 1.1.C.D

PROJECT ENGINEER: C. Van Arsdale

ESTIMATOR: R. Smolin

ESTIMATE NUMBER: C2-2001-005-07-23

C2-2001-005-07-24 C2-2001-005-07-25 C2-2001-005-07-26 C2-2001-005-07-27 C2-2001-005-07-28 C2-2001-005-07-29

FY03 is by the support contractor, WISE Services. Submittals, bond and insurance, overhead and profit are not applicable to the support contractor.

All other projects, FY04 through FY09 are by the sub-contractor. Surveying by a three-person sub-contractor crew at \$140/hour is included for FY04 through FY 07. Both the surveying and project staffing costs are allocated among the various simultaneous OSDF projects per the OSDF documents and an allocation chart. Equipment operating costs assume an 85% operations factor unless otherwise indicated. The support contractor uses a single rental screener. Fluor Femald in FY04 purchases two screeners with associated stacker conveyers. A spare parts allowance has been excluded.

Fluor Fernald, Inc.

PROJECTS CONTROLS ESTIMATING SERVICES

May 16, 2001

ROJECT DESCRIPTION	Baseline OSDF	Borrow Area
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WBS NUMBER: 1.1.C.D

PROJECT ENGINEER: C. Van Arsdale

ESTIMATOR: R. Smolin

ESTIMATE NUMBER: C2-2001-005-07-23

C2-2001-005-07-24 C2-2001-005-07-25 C2-2001-005-07-26 C2-2001-005-07-27 C2-2001-005-07-28 C2-2001-005-07-29

ESTIMATE ASSUMPTIONS

XECUTION:
This project is to be performed on a 50-hour week, 10 hours a day. This project is to be performed on a 40-hour week, 8 hours a day.
Premium time allowed.
AGE RATES:
 Wage rates within this estimate are based on Project Labor Agreement rates, effective October 2000 and are considered FY01 dollars for estimating for FY04 through FY09. Wage rates within this estimate are based on FF Support Contractor FSC 645 wage rates, effective January 30, 2001 and are considered FY01 dollars for estimating for FY03 only. Wage rates within this estimate are based on FF FTE Planning Labor Rates FY01.
NGINEERING:
⊠ N/A
Engineering dollars provided by the Project Engineer.
Engineering dollars have been factored in at the standard 12% of the total direct and indirect field costs as per request of Project Engineer.
ONSTRUCTION MANAGEMENT:
□ N/A
Construction Management staffing by discipline has been included.
Construction Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

Fluor Fernald, Inc. PROJECTS CONTROLS ESTIMATING SERVICES

May 16, 2001

PROJECT DESCRIPTION: Baseline OSDF Borrow Area

WBS NUMBER: 1.1.C.D

PROJECT ENGINEER: C. Van Arsdale

ESTIMATOR: R. Smolin

ESTIMATE NUMBER: C2-2001-005-07-23

C2-2001-005-07-24 C2-2001-005-07-25 C2-2001-005-07-26 C2-2001-005-07-27 C2-2001-005-07-28 C2-2001-005-07-29

PROJECT MANAGEMENT:	P	R	0	JE	CT	N	14	١N	Δ	G	EN	И	E	N	T:	
---------------------	---	---	---	----	----	---	----	----	---	---	----	---	---	---	----	--

N/A□ Project Management dollars p□ Project Management dollars hindirect field costs as per request	ave been factored in at the standard 30% of the total direct and
WASTE PROGRAM MANAGEMENT:	

Waste Program Management dollars provided by the Project Engineer.

PRODUCTIVITY:

A productivity factor has been developed and applied to the unit man-hours derived from MEANS, Richardson, NECA, and or any other published estimating source. See attachment APPENDIX "A" and APPENDIX "B".

ESCALATION:

Escalation costs are excluded from the target estimate. The escalation costs are calculated within the Micro-Frame computer system according to the plan for rebaselining.

UNIT RATES:

Unit man-hours and material dollars are based on Richardson, MEANS, NECA, National Constructor, historical data at Fernald, and or other published rates. Some man-hours and equipment requirements are provided by engineering and CM. Equipment rental rates and hourly operating costs are from the Blue Book Volume 1.

Fluor Fernald, Inc. PROJECTS CONTROLS ESTIMATING SERVICES

May 16, 2001

PROJECT DESCRIPTION: Baseline OSDF Borrow Area

WBS NUMBER: 1.1.C.D

PROJECT ENGINEER: C. Van Arsdale

ESTIMATOR: R. Smolin

ESTIMATE NUMBER: C2-2001-005-07-23

C2-2001-005-07-24 C2-2001-005-07-25 C2-2001-005-07-26 C2-2001-005-07-27 C2-2001-005-07-28

C2-2001-005-07-29

G & A (HO EXPENSE):

G & A are excluded from the target estimate. The G & A cost are calculated within the Micro-Frame computer system according to the plan for rebaselining.

HEALTH PHYSICS:

See attached APPENDIX "C".

RISK BUDGET:

N/A

CONTINGENCY:

N/A

Fluor Fernald, Inc.

PROJECTS CONTROLS ESTIMATING SERVICES

May 16, 2001

PROJECT DESCRIPTION: Baseline OSDF Borrow Area

WBS NUMBER: 1.1.C.D

PROJECT ENGINEER: C. Van Arsdale

ESTIMATOR: R. Smolin

ESTIMATE NUMBER: C2-2001-005-07-23

C2-2001-005-07-24 C2-2001-005-07-25 C2-2001-005-07-26 C2-2001-005-07-27 C2-2001-005-07-28 C2-2001-005-07-29

ESTIMATE INCLUSIONS & EXCLUSIONS

INCLUSIONS:

- Mobilization.
- Demobilization.
- Labor hours.
- Material dollars.
- Equipment rental.
- Equipment operating.
- Contractor staffing.
- Screener (2) purchase by FF.

EXCLUSIONS:

- Permits and fees.
- FF G & A (Home Office Expense).
- Escalation due to volatile petroleum costs.
- Any second tier subcontract costs.
- Project Management dollars.
- Waste Management dollars.
- Control & Management
- Landlord costs.
- Screener spare parts

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET PROJECT: **OSDF BASELINE BORROW AREA CCPL2 FY03** DATE: 16-May-01 ESTIMATE NO.: C2-2001-05-007-23 ESTIMATOR: RIS Fluor Fernald, Inc. CLIENT: DOE LOCATION: FERNALD WBS NO.: 1.1.C.D CCPL2 TASK NO: DESCRIPTION M/H AVG. SPT.CONT. FERNALD RATE LABOR \$ SIC | OTHER MAT'L \$ EQUIP \$ TOTAL \$ Mobilization 70 \$2,400 \$6,300 \$4,600 \$10,900 Site Preparation 560 \$19,000 \$8,800 \$9,500 \$18,300 Screening 6,450 \$238,390 \$505,500 \$505,500 \$4,540 Demobilization 130 SUPPORT CONT. / FF D. F. COST TOTAL 7,210 \$36.66 \$264,330 \$6,300 \$13,400 \$515,000 \$534,700 SUPERVISION \$57,100 1,370 \$4,000 \$4,000 **SMALL TOOLS & CONSUMABLES** MISC. EQUIP.RENTAL JOB CLEAN-UP \$1,000 \$3,000 \$1,000 82 SAFETY 46 \$1,700 \$900 \$900 \$300 \$1,600 \$1,600 **HEALTH PHYSICS S/C** JOB SPECIFIC TRAINING \$62,100 SUPPORT CONT. INDIRECT FIELD COST TOTAL 1,506 8,716 \$37.45 \$326,430 SUPPORT CONT. TOTAL BILLABLE COSTS TEMPORARY FACILITIES TEMPORARY UTILITY HOOK-UP \$1,300 \$30,900 \$32,200 FD FERNALD SALES TAX \$30,900 FF INDIRECT FIELD COSTS TOTAL \$8,800 \$39,700 FF DIRECT & INDIRECT FIELD COSTS TOTAL \$6,300 \$22,200 \$545,900 \$574,400 \$545,900 \$326,430 \$6,300 \$22,200 \$900,830 FF and SUPT.CONT. DIRECT & INDIRECT FIELD COST TOTAL SUB-TOTAL (BASE ESTIMATE) \$900,800 (FY 01 DOLLARS) **TARGET ESTIMATE** \$900,800 ESTIMATE PERFORMED 8

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT:

CLIENT:

ESTIMATE NO.: C2-2001-05-007-23

DOE

OSDF BASELINE BORROW AREA CCP

FACTORS

DATE: 16-May-01

ESTIMATOR: RIS

LOCATION: FERNALD

TA	CK	NO.:	•

WBS NO.: 1.1.C.D						TASK NO.:	CCPL2
	SUPT.CONT.	FD FERNALI					PROJECT
	LABOR \$	LABOR \$	S/C \$	MAT'L.\$	EQUIP. \$	PPE \$	TOTAL \$
DFC DOLLARS	\$264,330		\$6,300	\$13,400	\$515,000	\$1,600	\$800,630
IFC COST FACTOR	1.2349	1.0000	1	1.4403	1.0000	-	
SALES TAX COST FACTOR	-	-	-	1.0600	1.0600	1.0600	
BOND + OVERHEAD & PROFIT COST FACTOR	N/A	NIA	N/A	N/A	N/A	N/A	
DIRECT FIELD COST FACTOR =	1.2349	1.0000	1.0000	1.5267	1.0600	1.0600	
DIRECT BASE ESTIMATE \$'s	\$326,430		6300	\$20,458	\$545,900	\$1,696	\$900,784
				·			
RISK BUDGET FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
DIRECT TARGET ESTIMATE FACTOR	1.2349	1.0000	1	1.5267	1.0600	1.0600	
DIRECT TARGET ESTIMATE (FYOO DOLLARS)	\$326,430		6300	\$20,458	\$545,900	\$1,696	\$900,784
					-		

NOTE:

^{1.)} If there are no equipment rental costs in the "Directs" (0 \$'s in 120) and the default allowance of \$3.50 per MH has been used in the "indirects", input the indirect Equip. \$'s in H62 and put a dash in H63. This will treat the Equip. \$'s as direct cost and apply the sales tax factor.

On page 3 below, insert the equipment \$'s in any pay items that apply.

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET PROJECT: **OSDF BASELINE BORROW AREA CCP** DATE: 16-May-01 ESTIMATOR: RIS ESTIMATE NO.: C2-2001-05-007-23 **Direct Field Cost** LOCATION: FERNALD CLIENT: DOE w/FACTORS SUPPORT TASK NO.: CCPL2 WBS NO.: 1.1.C.D PROJECT CONT. FF TOTAL \$ PAY ITEM NO. DESCRIPTION EQUIP. \$ PPE \$ LABOR \$ LABOR\$ S/C \$ MAT'L.\$ 1,600 1,600 PPE \$1,700 \$1,700 4,600 13,300 Mobilization 2,400 6,300 \$2,960 \$7,020 \$16,280 \$6,300 37,300 9,500 19,000 8,800 Site Preparation \$46,970 \$23,460 \$13,440 \$10,070 743,890 238,390 505,500 Screening \$294,400 \$535,830 \$830,230 4,540 Demobilization 4,540 \$5,610 \$5,610 SUB-TOTAL - SUPPORT CONTRACTOR \$326,430 \$326,430 SUB-TOTAL - FF \$6,300 \$20,460 \$545,900 \$1,700 \$574,360 \$900,790 TOTAL DIRECT FIELD COSTS WIFACTORS

NOTE: The above costs exclude any FD Fernald support costs that may appear on page 1 & 2, such as Waste Disposition, Engineering, Project Management, or Construction Management.

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PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY03 ESTIMATE NO.: C2-2001-05-007-23

CLIENT:

WBS NO.:

DOE 1.1.C.D

Fluor Fernald, Inc.

DATE: 16-May-01 ESTIMATOR: RIS

LOCATION: FERNALD

TASK NO.: CCPL2

\$798,960	\$515,010	\$13,380	\$6,270	\$264,300					\$36.66	7,210		1 LOT		Subtotal Direct Cost
			. 1											
								-						•
			·											
\$4,540				\$4,540		,				130				Demobilization
		•				•								
\$743,910	\$505,520		-	\$238,390						6,450				Screening
	;												· .	
\$37,260	\$9,490	\$8,780		\$18,990						560				Site Preparation
\$13,250		\$4,600	\$6,270	\$2,380						70				Mobilization
			·											
IOIAL	E COL	MAIL	SIC	LABOR	Equip	COST/ UNIT	S/C	Labor	S Rate	MAN-HOURS Total	Unit	LINO LINO	αT	SUMMARY
TOTAL	- E	MAT	ري. اي	ABOR		/IINIT	TSCO		Ų	DI CHINAN		_	7	CLIMARADV

SUPPORT CONTRACTOR - Stated in FY01 DOLLARS

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY03 ESTIMATE NO.: C2-2001-05-007-23

DOE CLIENT:

Fluor Fernald, Inc.

DATE: 16-May-01 ESTIMATOR: RIS LOCATION: FERNALD

TASK NO.: CCPL2

WBS NO.:		1.1.C.D	.	ΩTY	UNIT		MAN-HOURS	S		SOO	COST/UNIT		LABOR	s/c	MAT'L	EQUIP	TOTAL
LEVEL						Unit	Total	Rate	Labor	S/C	Mati	Equip					
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SUPPORT CONTRACTOR - Stated in FY01 DOLLARS

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY03 ESTIMATE NO.: C2-2001-05-007-23

CLIENT:

WBS NO.:

1.1.C.D

EVEL

Fluor Fernald, Inc.

DATE: 16-May-01 ESTIMATOR: RIS LOCATION: FERNALD

CCPL2

TASK NO.:

\$1,210 \$390 \$4,300 \$4,970 \$2,380 \$13,250 TOTAL EOUIP \$4,300 \$4,600 MAT'L \$1,210 \$6,270 \$4,970 SIC \$2,380 \$2,380 LABOR Equip 4 Mat'l COST/UNIT 2 22 350 S/C Labor 33.93 Rate MAN-HOURS 2 Total Ē 7.1 MTH 7.1 MTH õ UNIT Æ 7.1 20 ξ 2 ea Portable toilets
Potable water, Allow 5jug/mth, \$8/jug 2 reqd D Mobilize contractor equipment Heat stress / support traile Mobilization Mobilization

16-May-01

DATE:

LOCATION: FERNALD

ESTIMATOR: RIS

CCPL2

TASK NO.:

OSDF BASELINE BORROW AREA CCPL2 FY03 PROJECT:

CLIENT:

NBS NO.:

PE EVEL

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ESTIMATE NO.: C2-2001-05-007-23 1.1.C.D DOE

Fluor Fernald, Inc.

\$1,270 \$1,240 \$470 \$110 \$320 \$150 \$46 \$300 \$1,910 \$1,200 \$390 \$220 \$350 \$320 \$1,200 \$1,850 \$160 \$3,500 \$1,270 \$2,780 \$6,360 \$2,100 \$100 TOTAL \$390 \$1,240 \$470 \$110 \$320 \$150 \$40 \$160 \$140 \$1,850 EOUP \$2,100 \$300 \$3,500 \$2,780 MAT' ဗ္ဗ \$1,910 \$1,270 \$6,360 \$1,270 \$800 \$350 \$320 \$1,200 LABOR 16.05 32.15 2,800 8.70 11,490 4,335 985 32.15 15.48 1.80 11,490 160 Equip 3500 \$1.05 0.30 77 9 Mat COST/UNIT S/C Labor 31.81 39.93 31.81 39.93 35.21 31.81 39.93 31.81 31.81 Rate MAN-HOURS 200 40 8 8 2 8 Total 9 9 5 5 8.5 6 6 26 5 5 5 5 5 Ē DAY DAY MTH HRS 규턴 HRS HRS HRS DAY DAY DAY MTH DAY HRS UNIT DAY DAY MTH DAY MTH MTH LF B¥ 1000 3 [0.14 2650 100 7 0.09 0.09 0.14 Ē 50% 50% 85% 85% 85% 85% 2 day = 2 day = 2 day = 3 day = 2 wks 120 Site Preparation Surface Water Management Set up field trailer, 8'x12' Compactor Walk behind at Backhoe Cat 416 at Compactor Walk behind Compactor Cat 563 at Backhoe Cat 416 Excavator Cat 330 at xcavator Cat 330 at Construction fence Compactor Cat 563 Excavator Cat 330 Excavator Cat 330 1 operator 1 operator 1 teamster 1 operator Haul truck at excavate ditch 2 laborer 2 laborer 2 laborer 2 laborer 1 laborer Haul truck 30" CMP Bedding Silt fence

Site Preparation

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PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY03 ESTIMATE NO.: C2-2001-05-007-23

Fluor Fernald, Inc.

LOCATION: FERNALD TASK NO.: CCPL2 DATE: 16-May-01 ESTIMATOR: RIS

WBS NO.: 1.1.C.D	ατγ	UNIT	W	MAN-HOURS			cos	COST/UNIT		LABOR	SIC	MAT.L	EQUIP	TOTAL
ונאנו			Unit	Total	Rate	Labor	S/C	Matil	Equip					
						•				·				
requires screener	С.		Ç	<u> </u>	31.81			The trade of the same from		\$1.910				· ·
			9 9	8 8	39.93				,	\$2,400				•
Excavator Cat 330 3 day = 10 loader Cat 966 3 day = 10 loader Cat 966	0.14								11,490			·	\$1,850	\$1,850 00 \$1,100
Excavator Cat 330 at Loader Cat 966 at	85%	HRS HRS	2e 2e						32.15 24.90			***************************************		\$820 \$630 \$630
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PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY03 ESTIMATE NO.: C2-2001-05-007-23

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CLIENT:	DOE				L	コロロ	Tet		r rernala, inc.	ວັ				LOCATION: FERNALD	FERNALD
WBS NO.:	1.1.C.D								•					TASK NO.: CCPL2	CCPL2
. Jad		ΔTY	Y	L	MAN-HOURS	RS		SOS	COST/UNIT		LABOR	SIC	MAT'L	EOUIP	TOTAL
ובאנו				Calt	Total	Rate	Labor	S/C	Maťi	Equip					
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Fluor Fernald, Inc.

16-May-01

DATE:

LOCATION: FERNALD

ESTIMATOR: RIS

CCPL2

TASK NO.:

OSDF BASELINE BORROW AREA CCPL2 FY03 PROJECT:

ESTIMATE NO.: C2-2001-05-007-23 DOE CLIENT:

WBS NO.:

1.1.C.D

\$120,190 \$27,360 \$52,180 \$35,730 \$45,610 \$27,070 \$94,140 \$53,590 \$28,990 \$14,620 \$47,000 \$18,200 \$59,470 \$24,850 \$580 \$1,170 \$1,740 \$580 TOTAL \$52,180 \$35,730 \$45,610 \$94,140 \$53,590 \$1,740 \$580 \$27,070 \$28,990 \$14,620 \$47,000 \$18,200 \$59,470 \$24,850 \$580 \$1,170 EQUIP MAT'L ဗ္ဗ \$90,840 \$120,190 LABOR 13,145 9,000 11,490 6,820 7,905 13,500 438 39.66 20.00 32.15 24.90 27.12 34.00 0.80 Ednip Mati COST/UNIT S/C Labor 35.21 39.93 31.81 Rate MAN-HOURS 2,580 3,010 860 Total 731 Unit MTH MTH LIND MTH MTH MTH MTH 3.97 3.97 3.97 3.97 3.97 3.97 3.97 3.97 85% 85% 85% 85% 85% 88 88 Ç 3 reqd reqd reqd 1 reqd Screener, priced as Extec w/2 c 1 reqd Generator, 5000 kw at Screening Generator, 5000 kw Screener, w/2 conv at Tractor, Challenger at Fruck, Volvo A30, at Tractor, Challenger 3.5 operators Excavator Cat 330 at Loader Cat 966 at rruck, Volvo A30 Loader Cat 966 Excavator Cat 330 2" pump at 3 teamster 2" pump 1 laborer Dozer, D8 at Dozer, D8 Screening PPE EVEL 0 0 0

\$743,910

\$505,520

\$238,390

\$36.96

6,450

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Screening

8 of 9

PROJE ESTIM	PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY03 ESTIMATE NO.: C2-2001-05-007-23	ROW AR	EA CCPL	.2 FY03	Ш	H		nale	Fernald. Inc.	d				DATE: 16-May-01 ESTIMATOR: RIS	16-May-01 :RIS EEDNALD
WBS NO.:)							٠	TASK NO.:	CCPL2
PPE	Demobilization	ΩTY	UNIT	M	MAN-HOURS			COS	COST/UNIT		LABOR	ЭIS	MAT'L	EQUIP	TOTAL
LEVEL				Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
								•							
Der	Demobilize contractor equipment	20	ā	က	0,	33.93					\$2,380			•	\$2,380
D Dem	Demob screeners		Ē	09	09	35.92					\$2,160		-		\$2,160

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Demobilization

\$4,540

9 of 9

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				-		APPENDIX	.V						
PROJECT: OSDF BASELINE BO	NE BORROW A	OSDF BASELINE BORROW AREA CCPL2 FY03	.03			SITE SPECIFIC						DATE:	16-May-01 RIS
CLIENT: DOE WES NO.: 1.1.C.D	67-79		·	EFFICIEI	NCY / A	EFFICIENCY / MULTIPLIER ANALYSIS	ANALYSIS						FERNALD CCPL2
-	II w	ON CHART MANHOURS	JURS										
	40%	20%	%09	7	70%	80%	%06	, 100%	105%	110%	% OF INFLUENCE	WT'D VALUE	PROD. RESULT
CRAFT SKILL (NOTE 1)	POOR			FAR	 			STD	V.G00D	EXCELLENT	100.0%	12.0%	0.12
CRAFT AVAIL (NOTE 1)		POOR		FA				STD			100.0%	8.0%	9.08
CLIMATE (NOTE 2)	SEVERE	ICEISNOW				RAIN		+40 T0 +85			30.0%	20.0%	0.18
PLANT ELEVATION		0VER 10,000FT				5,000° TO 10,000 FT		UNDER 5,000 FT			100.0%	5.0%	0.02
WORK SPACE	or Time	Tible eulere		200 SF	<u>.</u>	250 SF	300 SF	350 SF			100.0%	10.0%	1.0
MODE WEEV	WOL 18	TE SUIL 13.		\dagger	+	T	T	4.10e / 5.8e			100.0%	15.0%	0.15
50 HOUR WORK WEEK	IIII MULTIPLE	IIIIIII IIIIIIIIIIIIIIIIIIIIIIIIIIIIII		OVER 7 WEEKS	8	3 TO 7 WEEKS	UP TO 3 WEEKS						
60 HOUR WORK WEEK			OVER 7 WEEKS	3 TO 7 WEFKS	-	UP TO 3 WEEKS							
SHIFTWORK 2nd Shift 3rd Shift			JRD SHIFT			2ND SHIFT		OR ONE SHIFT ONLY		·	100.0% 100.0%	3.0%	0.03
PROJECT SIZE		·				400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS	·	105.0%	4.0%	0.042
PLANT TYPE				REVAMP ONLY		REVAMP & NEW	NEW IN EXIST PLT	GRASS ROOTS			80.0%	8.0%	0.064
AREA/UNION INFLUENCE	STRONG		WILD			SOME	,	NONE	·	·	40.0%	10.0%	0.04
NOTES.											·	100.0%	90.6%
1. TURNOVER HAS BEEN CONSIDERED	ISIDERED				岀	EFFICIENCY	(AS A %	(AS A % OFF CHART MANHOURS)	(OURS)				90.6%
Z. run Ex icnion wonn our.	_					IULTIPLIER.	(TO BE AP	MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S	M.H.'S TO 0BT.	AIN SITE M.H.	(8.		1.10
		-		ŀ			T						

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PROJECT:

OSDF BASELINE BORROW AREA CCPL2 FY03

ESTIMATE NO C2-2001-05-007-23

CLIENT: WBS NO .:

1.1.C.D

Fluor Fernald, Inc.

DATE:

16-May-01

ESTIMATOR: RIS

LOCATION: FERNALD TASK NO.:

PPE's - PERSONAL PROTECTIVE EQUIPMENT

		UNIT	* NO.	OF CHANGE OUT:	S PER WORKER I	PER DAY	
DESCRIPTION	UNIT	COST	Man Da	ys (TOTAL HOUR	S worked in PPE	's Div. by WORK i	IOURS/DAY)
PPE LEVEL C/C+		\$' s	*	MAN DAYS	MAT'L\$'s	LEVEL	
LAUNDRY COST per CHANGE	SET	1.96	1	0	\$0	C/B	
TYVEK COVER-ALL w/HOOD & BOOTIES - DIS	EA	4.46	3	0	\$0	C/B	
TYVEK COVER-ALL W/HOOD & BOOTIES - DIS	EA	4.46	3	0	\$0	CIB	
GLOVE LINER - DISPOSABLE	PR	0.24	3	0	\$0	C/B	
GLOVE, LASTEX - DISPOSABLE	PR	0.26	3	0	\$0	C/B	
GLOVE, WORK - DISPOSABLE	PR	1.02		0	\$0	CIB	
APR CARTRIDGES - DISPOSABLE, CLEANING	PR	9.38	3	0	\$0	CIB	
SUB-TOTAL				0	\$8		
				\$/MD =	#DIV/01		•
PPE LEVEL mC							•
RESS w/ FACE SHIELD		\$'s		MAN DAYS	MAT'L.\$'s	LEVEL	
LAUNDRY COST per CHANGE	SET	1.96		0	\$0	mC	
LT.WT. DISPOSABLE COVERALLS W/HOOD &	PR	4.46		0	\$0	mC	
GLOVE LINER - DISPOSABLE	PR	0.24		0	. \$0	mC_	
GLOVE, LASTEX - DISPOSABLE	PR	0.26		0	\$8	mC	
GLOVE, WORK - DISPOSABLE	PR	1.02	3	8	* \$0	mC	
SUB-TOTAL				0	\$0	mC	
SUB-TOTAL				\$/MD =	#DIV/0!	mC	
SUB-TOTAL PPE LEVEL D					<u> </u>	mC	

			QTY. PER	NO. OF			
SUBCONTRACTOR REQUIRED PURCHASES	UNIT		WKR.	WORKERS	MAT'L. \$'s	LEVEL	
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	12.70	2	8	\$203	DICIB	
APR w/HALF FACE MASK - (1) PER WORKER	EA	22.30	6	0	\$0	C]
APR W/FULL FACE MASK - (1) PER WORKER	EA	174.00	6	0	\$0	C]
SCBA	EA	1894.00	2	0	\$0	В]
COOL VESTS	EA	137.50	6	0	\$0	CIB]
THERMO STRIPS	EA	50.00	6	0	\$8	CIB]
SUB-TOTAL	•				\$200	C/B]

Total PPE Matl \$ and Laundry \$ (FORWARD TO PAGE 2 OF 2)

OTHER PPE'S SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. FD FERNALD SUPPLIED PPE'S, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCLUDED.

HEALTH PHYSICS

OSDF BASELINE BORROW AREA CCPL2 FY03 PROJECT:

ESTIMATE NO C2-2001-05-007-23

CLIENT: WBS NO.: DOE 1.1.C.D

DATE:

16-May-01

ESTIMATOR: RIS LOCATION: FERNALD

TASK NO.:

CCPL2

-MEDICAL MONITORING -

BASELINE PHYSICALS 1 4 0 0 \$36.66 \$0 ANNUAL PHYSICALS 0 4 0 0 \$36.66 \$0 EXIT (TERMINATION) PHYSICALS (IN-VIVO) 1 1 0 0 \$36.66 \$0							
DESC. QTY HRS WKR TOTAL HOURS LABOR TOTAL LABOR TOTAL HOURS PHYSICAL (3hrs), IN-VIVO (1hr) 1 4 0 0 \$36.66 \$0 ANNUAL PHYSICALS 0 4 0 0 \$36.66 \$0 EXIT (TERMINATION) PHYSICALS (IN-VIVO) 1 1 0 0 \$36.56 \$0	MEDICAL - PHYSICAL and IN-VIVO	MONITOR	ING - LOST V	VORKER	TIME for RAD II	WORKERS ONL	Y
PHYSICAL (3hrs), IN-VIVO (1hr) HOURS RATE LABOR \$ BASELINE PHYSICALS 1 4 0 0 \$36.66 \$0 ANNUAL PHYSICALS 0 4 0 0 \$36.66 \$0 EXIT (TERMINATION) PHYSICALS (IN-VIVO) 1 1 0 0 \$36.56 \$0							
BASELINE PHYSICALS 1 4 0 0 \$36.66 \$0 ANNUAL PHYSICALS 0 4 0 0 \$36.66 \$0 EXIT (TERMINATION) PHYSICALS (IN-VIVO) 1 1 0 0 \$36.66 \$0	DESC.	QTY	HRS	WKR	TOTAL	LABOR	TOTAL
ANNUAL PHYSICALS 0 4 0 0 \$36.66 \$0 EXIT (TERMINATION) PHYSICALS (IN-VIVO) 1 1 0 0 \$36.66 \$0	PHYSICAL (3hrs), IN-VIVO (1hr)				HOURS	RATE	LABOR \$
EXIT (TERMINATION) PHYSICALS (IN-VIVO) 1 1 0 0 \$36.66 \$0	BASELINE PHYSICALS	1		4 0	. 0	\$36.66	\$0
	ANNUAL PHYSICALS	0		4 0	0	\$36.66	\$0
SUB-TOTAL \$0	EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1		1 0	0	\$36.66	. \$0
002.00.00	SUB-TOTAL				•		\$0

RADIATION I	N-VITRO SURVEILLA	ANCE - LOST	WORKER	R TIME for RAD	II WORKERS (ONLY	
DESC.	ату	HRS	WKR	TOTAL Hours	AVG. Labor Rate	TOTAL Labor \$	
BI-MONTHLY BIOASSAY	4	1	0	. 0	\$36.66	\$0	
SUB-TOTAL SUB-TOTAL						\$0	

R	ANDOM DRU	G TEST	NG			
	TESTS	HRS	TOTAL HRS	AVG. RATE	LABOR \$'s	
	4	2	8	\$36.66	\$300	
NO. OF	TESTING	AVOL BO.	CHANCE	NO. OF WKRS.	CHANCES	CONSTR
WKRS.	DAYS	OF TESTS	DAY	FOR THIS	DAY FOR TEST	WORKING
 TESTED	PER YR.	PERMY	FOR TEST	ESTIMATE	for this PROJECT	RAYS
2500	226	11	0.0044	7	0.0308	135

	LABOR \$'s Thru Safety	LABOR \$'s	
WORK DELAYS CAUSED BY MONITORING 0.0%	\$326,130	\$0	
WORK DELAYS CAUSED BY RAD CHECKING 0.0%	\$326,130	LABOR \$'s	
HOME DEER TO GROUD BY HAD BILDRING U.D.A	4020,100	70	
	TOTAL Labor	TOTAL MAT'L	GRAND TOTAL
TOTAL HEALTH PHYSICS - FORWARD TO ESTIMATE SUMMARY SHEET	\$300	\$1,600	\$1,900

ESTIMATE SUMMARY SHEET

PROJECT:

OSDF BASELINE BORROW AREA CCPL2 FY04

ESTIMATE #: C2-2001-05-007-24

DOE

FLUOR FERNALD

DATE:

16-May-01

ESTIMATOR: RIS

LOCATION: FERNALD

CLIENT: WBS #: 1.1.C.D TASK NO.: CCPL2 ITEM DESCRIPTION MH RATE LABOR\$ S/C\$ MAT'L\$ EQUIP. \$ TOTAL\$ Insurance & Bond \$61,990 \$61,990 \$200 \$29,690 Submittals 805 \$29,490 Overhead and Profit \$369,006 \$369,006 \$8,570 Mobilization 70 \$1,650 \$6.620 \$300 Site Preparation 560 \$13,310 \$8,780 \$9,490 \$31,580 Screening 11,690 \$286,200 \$432,000 \$686,310 \$1,404,510 \$4,630 \$4,630 Demobilization 190 \$13,420 Survey \$13,420 Project Staffing 2,667 \$84,630 \$84,630 DIRECT FIELD COSTS TOTAL 15,982 \$26.27 \$419,910 \$451,036 \$441,280 \$695,800 \$2,008,026 SUPERVISION - CONTRACTOR \$5,900 \$5.900 SMALL TOOLS & CONSUMABLES \$22,800 \$22,800 MISC. EQUIP. RENTAL . TEMPORARY FACILITIES incl w/Mobilization TEMPORARY UTILITY HOOK-UP incl w/Mobilzation JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE **HEALTH PHYSICS S/C ind w/Submittals** CERCLA - TRAINING incl w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING W/si \$239,300 \$239,300 **PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT** BOND \$26,800 \$43,100 \$69,900 SALES TAX INDIRECT FIELD COSTS TOTAL \$239,300 \$32,700 \$65,900 \$337,900 DIRECT & INDIRECT FIELD COSTS TOTAL \$41.25 \$659,210 15,982 \$451,036 \$473,980 \$761,700 \$2,345,926 TARGET ESTIMATE (FY 01 DOLLARS) \$2,345,900

ESTIMATE PERFORMED BY ESTIMATING SERVICES

E	STIMATE SUMM	ARY SHE	ET			
PROJECT: OSDF BASELINE BORROW AREA CCPL2 F					DATE:	16-May-01
ESTIMATE NO. C2-2001-05-007-24	FACTOR	RS			ESTIMATOR:	RIS
CLIENT: DOE WBS NO.: 1.1.C.D	·				LOCATION: TASK NO.:	FERNALD CCPL2
FIXED PRICE S	LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE\$	TOTAL \$
DFC DOLLARS	\$419,910	\$451,036	\$441,280	\$695,800		\$2,008,026
IFC COST FACTOR BOND + OVERHEAD & PROFIT COST FACTOR	1.5699 1.0000	1.0000	1.0134 1.0000	1.0328 1.0000	1	
SALES TAX	•	-	1.0600	1.0600	1.0600	
DIRECT FIELD COST FACTOR =	1.5699	1.0000	1.0742	1.0947	1.0600	
BASE ESTIMATE \$'S	\$659,210	\$451,036	\$474,011	\$761,716		\$2,345,97
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
DAGE PACTOR						
TARGET ESTIMATE FACTOR	1.5699	1.0000	1.0742	1.0947	1.0600	
FPS TARGET ESTIMATE (FY01 \$)	\$659,210	\$451,036	\$474,011	\$761,716		\$2,345,97

NOTE:

IF THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

PROJECT:	OSDF BASELINE BORROW AREA CCPL2 F	TIMA	TE SUMM	ARY SHE	EET		DATE:	16-May-01
ESTIMATE NO.	C2-2001-05-007-24	DIRE	CT FIELD	COST			ESTIMATOR:	RIS
CLIENT:	DOE	W	FACTO	RS			LOCATION: TASK NO.:	FERNALD CCPL2
WBS NO.: PAY ITEM NO.	1.1.C.D DESCRIPTION		LABOR \$	S/C \$	MAT'L.\$	EQUIP. \$	PPE\$	TOTAL \$
TATTILITIO.	Decoration			PRORATE PP	E MAT'L\$'S)-		<u> </u>	1017124
	Insurance & Bond			61,990		•		61,990
				\$61,990				\$61,990
	Submittals		29,490		200			29,690
			\$46,300		\$210			\$46,510
	Overhead and Profit			369,006 \$369,010				369,006 \$369,010
				\$305,010			•	φουσ,υ τι
	Mobilization		1,650	6,620	300			8,570
			\$2,590	\$6,620				\$9,530
	O'lle Describe		13,310		· 8,780	9,490		31,580
-	Site Preparation		\$20,900		\$9,430	\$10,390		\$40,720
			1					
	Screening		286,200		432,000	686,310 \$751,330		1,404,510 \$1,664,670
			\$449,300		\$464,040	\$751,330		\$1,004,070
	Demobilization		4,630					4,63
			\$7,270					\$7,27
		,						
								<i>t</i>
	·							
	Survey			13,420				13,42 \$13,42
				\$13,420		}		\$13,42
	Project Staffing		84,630					84,63
			\$132,860					\$132,86
TOTAL DIRECT			\$659,220	\$451,040	\$474,000	\$761,72		\$2,345,98

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PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY04
ESTIMATE NO.: C2-2001-05-007-24
CLIENT: DOE
WBS NO.: 1.1.C.D

ITEM	N SHIMMARY	λΤο	TINIT	¥	MAN-HOURS	-		COST	COST / UNIT		LABOR	S/C	MAT'L	EQUIP	TOTAL
Š				Cuit	Total	Rate	Labor	S/C	Mati	Equip					
	Insurance & Bond											\$61,990			\$61,990
	Submittals				805						\$29,490		\$200	****	\$29,690
	Overhead and Profit											\$369,010			\$369,010
	Mobilization				20					·	\$1,650	\$6,620	\$300		\$8,570
	Site Preparation				260						\$13,310		\$8,780	\$9,490	\$31,580
	Survey											\$13,420			\$13,420
•	Screening				11,690						\$286,200		\$432,000	\$686,310	\$1,404,510
	Demobilization				190			-			\$4,630				\$4,630
														an yang angangan garapa	
	Project Staffing				2,667						84,630		-		\$84,630
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PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY04
ESTIMATE NO.: C2-2001-05-007-24
CLIENT: DOE
WBS NO.: 1.1.C.D

ITEM		ΩT	LIND	<u>_</u>	MAN-HOURS	RS		SOS	COST/UNIT		LABOR	s/c	MAT'L	EQUIP	TOTAL	
				S		Rate	Labor	s/c	Mat'i	Equip						
Sul	Insurance & Bond		_	_				COST						•		
lish	rance 1.5%							OH & P								
Fo	For both FYs Sub-total 2.8%		-		_			2214036				\$61,990		-	\$61,990	
- 2	Submittals													•		
Plans	\$2										\$12,150				\$12,150	
ec	Technical submittals Site access & GET traing costrol work force	- **	5 E		360	26.27	•				\$8,450				\$8,450	
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£	Health Physics				င္ပ	23.64					005,14		002\$		000,14	
	Sub-total		\vdash		802	10					\$29,490		\$200		\$29,690	
ð	Overhead and Profit			2000								£369 010			4369.010	
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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY04
ESTIMATE NO.: C2-2001-05-007-24
CLIENT: DOE
WBS NO.: 1.1.C.D

TOTAL			\$5,250					\$1,280 \$390	\$1,650					
EQUIP													ž	
MAT'L						·····		\$300						0000
S/C			\$5,250					\$1,280	-		•			KANTA \$6,620 M
LABOR									\$1,650					##### \$1/650 ##### \$6/620 ###
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Mobilization			Heat stress / support trailers					Portable toilets Potable water, Allow 5jug/mth, \$8/jug	Mobilize contractor equipment					K. W. W. W. W. W. W. W. W. W. W. W. W. W.
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DETAIL ESTIMATE WORKSHEETS

1.1.C.D WBS NO.:

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY04
ESTIMATE NO.: C2-2001-05-007-24

FLUOR FERNALD

TOTAL		\$300 \$1,360 \$810	\$220	\$3,500 \$910	\$2,780	\$910	\$1,240	\$110	\$320	\$40	\$2,100	001. ♦	000	\$230	\$810	\$1,850	\$160) }				
EQUIP		92	\$220				\$1,240	\$4/0	\$320	\$40						\$1,850	\$160	2				A CONTRACTOR OF
MAT'L		\$300		\$3,500	\$2,780						\$2,100	\$100										NAME OF TAXABLE PARTY OF TAXABLE PARTY OF TAXABLE PARTY.
S/C			·																			
LABOR		\$1,360 \$810		\$910	\$4,530	\$910	0+00						0004	\$230	\$810							THE RESERVE
	Equip	2 800	8.70				11,490	4,335 985	32.15	1.80		2				11,490	160	32.15				
UNIT	· Mat'i	0.30		3,500	\$1.05						21	9								. *		
COST/UNIT	SIC				·																	
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Site Preparation		Sil tence 2 laborer 1 operator Backho Cal 418	Backhoe Cat 416 at	Set up field traller, 8'x12' 2 laborer	Construction fence 2 laborer	Surface Water Management 2 laborer	1 operator Excavator Cat 330	Compactor Cat 563 Compactor Walk behind	Excavator Cat 330 at	Compactor Walk behind at	30" CMP	Bedding	Excavate ditch	1 teamster	1 operator	Excavator Cat 330	Haul truck	Frevator Cat 330 at				SieBrenard Sterrengen
NELI	ġ Q	0 0		a	۵	۵	۵						٠	ه ه	۵ ۵							7

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY04
ESTIMATE NO.: C2-2001-05-007-24
CLIENT: DOE
WBS NO.: 1.1.C.D

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TOTAL		\$1,360 \$1,620 \$1,850 \$1,100 \$630		\$3.16
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PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY04
ESTIMATE NO.: C2-2001-05-007-24
CLIENT: DOE
WBS NO.: 1.1.C.D

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	Labor				100000
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			projects ', \$17,001 ration		2000000
		·	g OSDF r nan crew ation – orter dur		A SHOW CO.
			d among for 3 m sa allooc for shc		2000
		•	Survey Cost shared among OSDF projects at \$140 hr for 3 man crew. Borrow area alloocation — \$17,000 & adjusted for shorter duration		
FEM	NO.		C Cos		2000
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DETAIL ESTIMATE WORKSHEETS

CLIENT: WBS NO.:

1.1.C.D

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY04
ESTIMATE NO.: C2-2001-05-007-24
CLIENT: DOE

TOTAL		•	\$80,460	000,1014	\$39,860	\$53,390	\$8,630	\$93,340	\$27,700	\$128,440	\$432,000	\$1,780	\$290	\$29,670	\$5,800	\$48,100	\$18,630	\$81,140	\$50,860	\$600	\$1,200	 £32 000	432,000	67 930	\$21,240		\$18,560	\$51,080	.\$11,800	\$9,560	\$24,200	\$174041510
EQUIP			· ·			\$53,390	\$8,630	\$93,340	\$27,700	\$128,440		\$1,780	\$280	\$29,670	\$5,800	\$48,100	\$18,630	\$81,140	\$50,860	\$600	\$1,200				\$21,240		\$18,560	\$51,080	008,11\$	\$9,560	\$24,200	48 建四部字等 的
MAT'L					•						\$432,000																					\$\$2#\$432,000
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LABOR			\$80,460	050,7014	\$39,860																	000 664	\$32,000	416,920	000	-						SE #\$286;200
	Equip					13,145	2,125	11,490	6,820	206'2		438	145	39.66	7.75	32.15	24.90	27.12	34.00	0.80	1.60				13.145		11,490	7,905	39.66	32.15	27.12	
COST/UNIT	Mat'i										216,000											 										
SOO	s/c		 		-				*****																							
	Labor																															
SS SS	Rate		22.5		22																			27.03	66.03							\$24,48
MAN-HOURS	Total		3,520	3,960	1,760																	7	004,	007	000							44690
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QTY			88	88	88	4.06	4.06	4.06	4.06	4.06	2.00	4.06	4.06	85%	82%	85%	82%	82%	85%	85%	85%	oil layers	3	3	3 6		1.62	1.62	85%	85%	85%	
				٠		1 reqd	1 reqd	2 reqd	1 requ	4 reqd	onv 2 reqd	1 reqd	1 reqd									g, Vegetative, & tops			1 rond	3	1 reqd	4 reqd				
Screening		Screening	4 teamster	4.5 operators	2 laborer	Dozer, D8	Tractor 4WD 75HP	Excevator Cat 330	Loader Cat 966	Truck, Volvo A30	Screener, FF purchase w/2 conv	2" pump	Generator, 5000 kw	Dozer, DB at	Tractor 4WD 75HP at	Excavator Cat 330 at	Loader Cat 966 at	Truck, Volvo A30, at	Screener, w/2 conv at	2" pump at	Generator, 5000 kw at	 Excavate & Stockpile Contouring, Vegetative, & topsoil layers	4 teamster	2 operators	T laborer	00,561, 00	Excavator Cat 330	Truck, Volvo A30	Dozer, D8 at	Excavator Cat 330 at	Truck, Volvo A30, at	
ITEM	ò		 ٥	٥	٥													_					٥	ه ا	۵							Section 1

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DETAIL ESTIMATE WORKSHEETS

16-May-01 RIS

DATE: ESTIMATOR: LOCATION:

FERNALD

CCPL2

TASK NO.:

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY04 ESTIMATE NO.: C2-2001-05-007-24

CLIENT:

1.1.C.D WBS NO.:

ITEM NO.

FLUOR FERNALD

TOTAL EQUIP MAT'L Equip Mat'l COST/UNIT S/C Labor Total Rate MAN-HOURS ij UNIT αTY

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY04
ESTIMATE NO.: C2-2001-05-007-24

FLUOR FERNALD

1.1.C.D

WBS NO.:

DATE: 16-May-01 ESTIMATOR: RIS

CCPL2 TASK NO.:

FERNALD LOCATION:

			350	380	
TOTAL			\$1,650	\$2,980	
70					
Н					
EQUIP					
EC					
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MAT'L					
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			20	\$2,980	
LABOR			\$1,650	\$2,9	
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MAN-HOURS	Rate		23.64	24.83	
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Demobilization			actor		
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			Demobilize contractor equipment	Demob screeners	
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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY04
ESTIMATE NO.: C2-2001-05-007-24
CLIENT: DOE
WBS NO.: 1.1.C.D

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY04
ESTIMATE NO.: C2-2001-05-007-24
CLIENT: DOE
WBS NO.: 1.1.C.D

DATE: 16-May-01
ESTIMATOR: RIS
LOCATION: FERNALD
TASK NO.: CCPL2 LOCATION: TASK NO.:

	490 120 280 770 540 330	0690	
TOTAL	\$4,490 \$3,120 \$24,280 \$9,770 \$20,640 \$22,330	\$84,630	
EQUIP			
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LABOR	\$4,490 \$3,120 \$24,280 \$9,770 \$20,640 \$22,330	\$84,630	The second second
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COST/UNIT	Matr		
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SS Date		31.73	
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	Project Staffing Project Manager General Superintendent Superintendent T.5 mth Superintendent T.5 mth Project Engineer T.5 mth Project Engineer T.5 mth Project Engineer T.5 mth Office Administration In overhead Contract Administration/ Schedu in overhead		
ITEM			1

HEALTH PHYSICS

PROJECT:

1.1.C.D

CLIENT: WBS NO .:

ESTIMATE NO. C2-2001-05-007-24

OSDF BASELINE BORROW AREA CODE EVOLUTION C2-2001-05-007-24 FLUOR FERNALD

ESTIMATOR: RIS LOCATION: FERNALD TASK NO.: CCPL2

17-May-01

DATE:

PPE"s - PERSONAL PROTECTIVE EQUIPMENT

		UNIT		* NO. C	F CHANGE OUT	S PER WORKER	PER DAY
DESCRIPTION	UNIT	COST	Man Da	ys (TOTAL HOUR	S worked in PPE's Di	v. by WORK HOURS /	DAY)
PPE LEVEL C / C+ / B: F/HF MASK w/RESP.&CA	RT.		*	MAN DAYS	MAT'L.\$'s	PPE LEVEL	
TYVEK COVER-ALL W/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	0	\$0	C / C+	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	0	\$0	C / C+	(DOUBLE PPE)
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	0	\$0	C/C+	
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	0	\$0	C / C+	
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	0	\$0		
APR CARTRIDGES - DISPOSABLE	PR	\$6.98	3	0	\$0	C/C+	
SUB-TOTAL		\$17.42	3		\$0		
				\$/MD =	\$0.00		
PPE LEVEL mC: FULL DRESS W/ FACE SHIELD				MAN DAYS	MAT'L.\$'s	PPE LEVEL	
LT.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIE	PR	\$4.46	3	0	\$0	mC	
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	0	\$0	mC	
GLOVE, LASTEX - DISPOSABLE	PR	\$0,26	3	0	\$0	»mC	
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	0	\$0	mC	
SUB-TOTAL		\$5.98	3		\$0		
				\$/MD =	\$0.00		
		,					
			QTY. PER	NO. OF			
SUBCONTRACTOR REQUIRED PURCHASES			WKR.	WORKERS	MAT'L.\$'s	PPE LEVEL	•
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	\$12.70	2	8	\$203	D/C/B	
APR w/HALF FACE MASK - (1) PER WORKER	EA	\$22.30	6	0	\$0	C	
APR w/FULL FACE MASK - (1) PER WORKER	EA	\$174.00	6	0	\$0	i,C	
SCBA	EA	\$1,894.00	2	0	\$0	州部 第B 語 か	
COOL VESTS	EA	\$137.50	6	0	\$0	C/B	
THERMO STRIPS	EA	\$50.00	6	0	\$0	::C/B	
SUB-TOTAL					\$200		

TOTAL PPE's =

MAT'L.\$'s \$200

(FORWARD TO PAGE 2 OF 2)

OTHER PPE'S SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. COSTS OF FD FERNALD SUPPLIED PPE's, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCURRED BY FD FERNALD AND COSTS ARE NOT INCLUDED AS PART OF PROJECT COSTS AT THIS TIME.

APPENDIX "C"

PROJECT:

OSDF BASELINE BORROW AREA CCPL2 FY04

ESTIMATE NO. C2-2001-05-007-24

CLIENT: WBS NO .: DOE 1.1.C.D

DATE:

17-May-01

ESTIMATOR: RIS

LOCATION: FERNALD

TASK NO.: CCPL2

-MEDICAL MONITORING -

MEDICAL - PHYSICAL and IN-VIVO MONITORING - LOST WORKER TIME for RAD II WORKERS ONLY DESCRIPTION QTY HRS WKR TOTAL HOURS LABOR RATE LABOR \$ PHYSICAL (3hrs), IN-VIVO (1hr) 1 4 0 0 \$26.27 \$0 ANNUAL PHYSICALS 0 4 0 0 \$26.27 \$0 EXIT (TERMINATION) PHYSICALS (IN-VIVO) 1 1 0 0 \$26.27 \$0 SUB-TOTAL SUB-TOTA								
DESCRIPTION QTY HRS WKR TOTAL HOURS LABOR RATE TOTAL LABOR \$ PHYSICAL (3hrs), IN-VIVO (1hr) 1 4 0 0 \$26.27 \$0 BASELINE PHYSICALS 0 4 0 0 \$26.27 \$0 ANNUAL PHYSICALS 0 4 0 0 \$26.27 \$0 EXIT (TERMINATION) PHYSICALS (IN-VIVO) 1 1 0 0 \$26.27 \$0	MEDICAL - PHYSICAL and IN-V	IVO MO	NITORING	- LOST	WORKER T	IME for RAD	II WORKERS	ONLY
BASELINE PHYSICALS 1 4 0 0 \$26.27 \$0 ANNUAL PHYSICALS 0 4 0 0 \$26.27 \$0 EXIT (TERMINATION) PHYSICALS (IN-VIVO) 1 1 0 0 \$26.27 \$0	DESCRIPTION	QTY	HRS	WKR	TOTAL		TOTAL	
ANNUAL PHYSICALS 0 4 0 0 \$26.27 \$0 EXIT (TERMINATION) PHYSICALS (IN-VIVO) 1 1 0 0 \$26.27 \$0	PHYSICAL (3hrs), IN-VIVO (1hr)				HOURS	RATE	LABOR \$	•
EXIT (TERMINATION) PHYSICALS (IN-VIVO) 1 1 0 0 \$26.27 \$0	BASELINE PHYSICALS	1	4	0	0	\$26.27	\$0	
	ANNUAL PHYSICALS	0	4	0	0	\$26.27	\$0	
SUB-TOTAL \$0	EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	0	0	\$26.27	\$0	
	SUB-TOTAL						\$0	

SURVEILLA	NCE - LO	ST WOR	KER TIME f	or RAD II WO	RKERS ONL'
QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL
6		1 0	0	\$26.27	\$0
		لــــــــــــــــــــــــــــــــــــــ			
				QTY HRS WKR TOTAL	QTY HRS WKR TOTAL LABOR HOURS RATE

RANDOM DRUG TESTING

	TESTS	HRS	TOTAL HOURS	AVG. RATE	LABOR \$'s	
	1	2	2	\$26.27	\$100	•
NO. OF	TESTING	AVG. NO.	CHANCE/	NO. OF WKRS.	CHANCES	CONSTR
WKRS.	DAYS	OF TESTS	DAY	FOR THIS	/DAY FOR TEST	WORKING
TESTED	PER YR.	PER DAY	FOR TEST	ESTIMATE	FOR PROJECT	DAYS
2340	226	10	0.0042735	2	0.0085	135

	LABOR \$'s THRU		
•	SAFETY	LABOR \$'s	
WORK DELAYS CAUSED BY MONITORING 0.3%	\$419,910	\$1,000	
		LABOR \$'s	
WORK DELAYS CAUSED BY RAD CHECKING 0.0%	\$419,910	\$0	
	TOTAL LABOR	TOTAL MAT'L.	GRAND TOTAL
TOTAL HEALTH PHYSICS	\$1,100	\$200	\$1,300
	/E00/11/10 E0		

(FORWARD TO ESTIMATE SUMMARY SHEET)

ESTIMATE SUMMARY SHEET

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY05

ESTIMATE #: C2-2001-05-007-25

CLIENT: DOE WBS #: 1.1.C.D

FLUOR FERNALD

DATE:

17-May-01

ESTIMATOR: RIS

LOCATION: FERNALD

TASK NO.: CCPL2

ITEM DESCRIPTION	M/H	RATE	LABOR\$	S/C \$	MAT'L\$	EQUIP. \$	TOTAL \$
				040 700			640.700
Insurance & Bond	20.4		005.050	\$49,720	2000		\$49,720
Submittals	694		\$25,250	6005.040	\$200		\$25,450
Overhead and Profit				\$295,940			\$295,940
Mobilization	70	*	\$1,650	\$8,470	\$400		\$10,520
Site Preparation	560		\$13,310		\$8,780	\$9,490	\$31,580
Screening	11,690		\$286,200	·	1	\$686,310	\$972,510
Interim Restoration	600		\$14,470	\$28,930	\$3,300	\$15,100	\$61,800
Demobilization	190		\$4,630	l	1		\$4,630
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Survey				\$17,000		İ	\$17,000
			1	VII,000	1		
Project Staffing	2,634	1	\$82,610		İ		\$82,610
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DIRECT FIELD COSTS TOTAL	16,439	\$26.04	\$428,120	\$400,060	\$12,680	\$710,900	\$1,551,760
SUPERVISION - CONTRACTOR							
SMALL TOOLS & CONSUMABLES	-	-	-		\$6,000		\$6,000
		1	_ 1		j	\$23,600	\$23,600
MISC. EQUIP. RENTAL	-	-	- 1	1		\$23,000	\$23,000
MISC. EQUIP. RENTAL TEMPORARY FACILITIES incl w/Mobilization	· -	-	-			\$23,600	φ23,000
TEMPORARY FACILITIES incl w/Mobilization	ion -					\$23,600 ·	\$25,00 0
TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization	ion					\$23,600	\$23,000
TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilzati JOB CLEAN-UP ind w/Job Close-out	ion -		-			\$23,600	\$23,600
TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilizati JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE	ion -	-	-			\$23,800	\$23,600
TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilizati JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals	ion -	-				\$23,800	\$23,600
TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilizati JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals	-	-	-			\$23,800	\$23,600
TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilizati JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING	-	-	- \$244.000			\$23,800	
TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilizati JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING PAYROLL BURDENS & BENEFITS	-	-	\$244,000			\$23,800	\$244,000
TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilizati JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT	-	-	\$244,000			\$23,800	
TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND	-	-	- \$244,000 - -		\$1.100		\$244,000
TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilizati JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX	-	-	-		\$1,100 \$7,100	\$44,100	\$244,000 \$45,200
TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX INDIRECT FIELD COSTS TOTAL	w/st	\$40.89	- - - \$244,000	\$400.060	\$7,100	\$44,100 \$67,700	\$244,000 \$45,200 \$318,800
TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilizati JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX	w/st		-	\$400,060	\$7,100	\$44,100 \$67,700	\$244,000 \$45,200
TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX INDIRECT FIELD COSTS TOTAL	w/st		- - - \$244,000		\$7,100 \$19,780	\$44,100 \$67,700	\$244,000 \$45,200 \$318,800
TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilizati JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX INDIRECT FIELD COSTS TOTAL DIRECT & INDIRECT FIELD COSTS TOTAL	w/st		- - \$244,000 \$672,120		\$7,100 \$19,780	\$44,100 \$67,700 \$778,600	\$244,000 \$45,200 \$318,800 \$1,870,560

EST	IMATE SUMM	ARY SHE	ET			
PROJECT: OSDF BASELINE BORROW AREA CCPL2 F	4				DATE:	17-May-01
ESTIMATE NO. C2-2001-05-007-25	FACTOR	RS		ESTIMATOR:	RIS	
CLIENT: DOE WBS NO.: 1.1.C.D					LOCATION: TASK NO.:	FERNALD CCPL2
FIXED PRICE (LABOR \$	S/C \$	MAT'L.\$	EQUIP. \$	PPE\$	TOTAL \$
DFC DOLLARS	\$428,120	\$400,060	\$12,680	\$710,900		\$1,551,760
IFC COST FACTOR BOND + OVERHEAD & PROFIT COST FACTOR	1.5699 1.0000	1.0000	1.4732 1.0000	1.0332 1.0000	: .	
SALES TAX	•	-	1.0600	1.0600	1.0600	
DIRECT FIELD COST FACTOR =	1.5699	1.0000	1.5616	1.0952	1.0600	
BASE ESTIMATE \$'S	\$672,120	\$400,060	\$19,801	\$778,570		\$1,870,551
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
TARGET ESTIMATE FACTOR	1.5699	1.0000	1.5616	1.0952	1.0600	
FPS TARGET ESTIMATE (FY01 \$)	\$672,120	\$400,060	\$19,801	\$778,570		-\$1,870,551

IF THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

	OSDF BASELINE BORROW AREA CCPL2 F C2-2001-05-007-25		ATE SUMN				DATE: ESTIMATOR:	17-May-01 RIS
CLIENT:	DOE		/FACTO	1			LOCATION:	FERNALD
	1.1.C.D	VV	FACIO	7 1 3			TASK NO.:	CCPL2
PAY ITEM NO.			LABORE	S/C \$	MAT'L. \$	EQUIP. \$	PPE\$	TOTAL \$
PATTIEWING.	DESCRIPTION		LABOR \$		E MAT'L.\$'S)-		PPE \$	IOIAL
			(ASSIGN OR	PRORATE PP	E NIA 1 L.\$ 5)-	3 >	A 1 15 4 4 4	
							<u> </u>	
							 	
	Insurance & Bond			49,720				49,7
				\$49,720			.	\$49,7
				***************************************			ľ	7.07.
	Submittals		25,250		200			25,4
-			\$39,640		\$310		l f	\$39,9
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	Overhead and Profit			295,940	·			295,9
				\$295,940				\$295,9
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	Mobilization		1,650	8,470			1 <u>L</u>	10,5
•			\$2,590	\$8,470	\$620		(L	\$11,6
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	Site Preparation		13,310		8,780	9,490		31,5
			\$20,900		\$13,710	\$10,390		\$45,0
	Ones and the first		200 200			606.040		070.5
	Screening		286,200			686,310		972,5
			\$449,320	•		\$751,640	1 1	\$1,200,9
	Interim Restoration		14,470	28,930	3,300	15,100		61,8
· ·	intenin Restoration		\$22,720	\$28,930				\$73,3
			Ψ22,720	Ψ20,000	ψο, 100	Ψ10,540	1 1	Ψ/ 0,0
	Demobilization		4,630				1	4,6
			\$7,270		<u> </u>		ļI	\$7,2
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	Survey		1	17,000				17,0
	l control			\$17,000			1	\$17,0
•	•			\$17,000				\$17,0
	Project Staffing		82,610				1	82,6
			\$129,690				1 1	\$129,6
			\$.25,550	-				φ123,C
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OTAL DIRECT			\$672,130	\$400,060	\$19,790	\$778,570	·	\$1,870,

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PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY05 ESTIMATE NO.: C2-2001-05-007-25 CLIENT: DOE WBS NO.: 1.1.C.D

DATE: 17-May-01
ESTIMATOR: RIS
LOCATION: FERNALD
TASK NO.: CCPL2

FLUOR FERNALD

Rate Labor S/C Marti Equip \$49,720 \$25,250 \$49,720 \$71,650 \$71,000 \$71,470 \$28,930 \$71,470 \$82,610 \$71,000 \$71,470 \$71,000 \$71,470 \$71,000 \$71,470 \$71,000 \$71,470 \$71,000 \$71,470 \$71,000 \$71,470 \$71,000 \$71,470 \$71,000 \$71,470 \$71	TOTAL	100	\$49,720	\$25,450	\$295,940	\$10,520	\$31,580	\$17,000	\$972,510	\$61,800	\$4,630	\$82,610
Rate Labor S/C Mart1 Equip \$49,720 \$25,250 \$726,250 \$71,000 \$7	FOLIIP	1000					\$9,490		\$686,310	\$15,100		\$82,610
Rate Labor S/C Mat'l Equip	MATI	- 1 CM		\$200		\$400	\$8,780			\$3,300		\$12,680
Rate Labor S/C Mat'l Equip	SIC	26	\$49,720		\$295,940	\$8,470		\$17,000		\$28,930		\$82,610 \$82,610
Rate Labor S/C Mat'l	IAROR	NOGY.		\$25,250		\$1,650	\$13,310		\$286,200	\$14,470	\$4,630	\$82,610
Rate Labor S/C		Equip		-								
Rate Labor	FINE	Matil		•		,						
The state of the s	L TOO	s/c										
SulMMARY ary unit MANHOURS Insurance & Bond Submittals Overhead and Profit Mobilization Site Preparation Survey Screening Interim Restoration Demobilization Project Staffing 2,634 190 2,634		Labor										
SUMMARY OTY UNIT MANHOURS Submittals Overhead and Profit Mobilization Site Preparation Soreening Interim Restoration Demobilization Project Staffing 2,634	+	Rate	-									291024
SUMMARY OTY UNIT Unit Insurance & Bond Submittals Overhead and Profit Mobilization Site Preparation Survey Screening Interim Restoration Demobilization Project Staffing	SQLION NAM	Total		694	· · · · · · · · · · · · · · · · · · ·	02	260		11,690	009	190	2,634
SUMMARY QTY UNIT Insurance & Bond Submittals Overhead and Profit Mobilization Site Preparation Survey Screening Interim Restoration Demobilization Project Staffing								•				
SUMMARY atv. Submittals Overhead and Profit Mobilization Site Preparation Survey Screening Interim Restoration Demobilization	TIMIT									:		HOTE
SUMMARY Submittals Overhead and Profit Mobilization Site Preparation Survey Careening Interim Restoration Demobilization Project Staffing	2,10											
NO.				Submittals	Overhead and Profit	Mobilization	Site Preparation	Survey	Screening	Interim Restoration	Demobilization	Project Staffing 2,634

FLUOR FERNALD PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY05
ESTIMATE NO.: C2-2001-05-007-25
CLIENT: DOE
WBS NO.: 1.1.C.D

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	MA! L						\$200	\$200			
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ľ				\$49,720					\$295,940		\parallel
3	S/S			\$4		•			\$29		
ŀ	-				10 20 50		00	20			+
	LABOR				\$9,110 \$7,590 \$8,450		\$100	\$25,250			
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I		Equip			•						
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	COSTAUNIT	ည္က	COST THRU OH & P	1775640						•	
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L		Labor			01 01 44		*		- <u>,</u>		
_		Rate			50.62 50.62 26.04		23.64	_			
١	URS				180 150 360		4	694	· · · · · · · · · · · · · · · · · · ·		+
1	MAN-HOURS	Total									
l	- 1	Unit			30				20%		
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ŀ	UNIT				20 EA EA			_			
l	ΩTΥ				62						
			1.3%	2.8%	Submittals Plans Technical submittals Site access & GET traing, cnstrct work for						
					cnstrc						
				lal	ls traing,	•		a	뷥		
			Insurance & Bond Performance bond	For both FY Sub-total	Submittals Plans Technical submittals Site access & GET fr		કુ	Sub-total	Overhead and Profit		
			Insurance & Bond Performance bond	# F	Submittals Plans Technical su Site access 8		Health Physics		lead a		
			Insur Perfor	For bo	Subr Plans Techr Site a				Overl		
	ITEM	ġ			000		. 0				

CONTRACTOR - Stated in FYq1 DOLLARS

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DETAIL ESTIMATE WORKSHEETS

FLUOR FERNALD PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY05 ESTIMATE NO.: C2-2001-05-007-25 CLIENT: DOE WBS NO.: 1.1.C.D

17-May-01 RIS FERNALD CCPL2 DATE:
ESTIMATOR:
LOCATION:
TASK NO.:

TOTAL		\$6,720		\$1,630	\$1,650			# \$10/520
EQUIP								
MAT'L				84	• • • • • • • • • • • • • • • • • • •			 \$400
S/C		\$6,720	•	\$1,630) 			N
LABOR		·			\$1,650			**************************************
	Equip							
TIN	Maťi							
COST/JNIT	s/c	350		85	1			
-	Labor			 				
	Rate		·		23.64			
MAN-HOURS	1				70			
2	Zil.				က			
TIND		ОМ		HTM	E A		·	
QTY		9.6		9.0	20 20			
		2 reqd		 2 ea	n, şo/jug ıt			
Mobilization		Heat stress / support trailers		Portable toilets	Potable water, Allow 5jug/mitn, Mobilize contractor equipment			W. X. Fr. Art. (Mobilization
		Heat stress /		Portable toilet				
L		. •			۵			

CONTRACTOR - Stated in FY01 DOLLARS

DETAIL ESTIMATE WORKSHEETS

FLUOR FERNALD PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY05 ESTIMATE NO.: C2-2001-05-007-25 CLIENT: DOE

1.1.C.D

CLIENT: WBS NO.:

TOTAL		\$300 \$1,360 \$810 \$390 \$220	\$3,500 \$910	\$2,780 \$4,530	\$910 \$540 \$1,240 \$470 \$320 \$110 \$150 \$2,100	·	
EQUIP		\$390			\$1,240 \$470 \$110 \$320 \$150 \$40	\$1,850 \$160 \$140	
MAT'L		\$300	\$3,500	\$2,780	\$2,100		
s/c							
LABOR		\$1,360 \$810	\$910	\$4,530	\$910 \$540	\$230 \$230 \$810	
	Equip	2,800 8.70			11,490 4,335 985 32.15 15.48 1.80	11,490 160 16.05 32.15	
TINE	Matil	0.30	3,500	1.05	27.		
COST/UNIT	S/C						
	Labor						
F	Rate	22.65 27.03	22.65	22.65	22.65 27.03	22.86 22.65 27.03	
MAN-HOURS	Total	30	40	200	20	30 00	
	Unit	10 10 26	10	10	6 6 6 6	10 10 8.5	
TIND		LF DAY DAY MTH HRS	DAY	LF DAY	DAY MITH MITH HRS HRS		
οTζ		1,000 LF 3 D/ 3 D/ 0.14 M1	. 7	2,650	2 0.09 0.09 0.09 171	0. + + & + +	
		85%		2 wks		3 day = 85% 85%	
Site Prenaration		Silt fence 2 laborer 1 operator Backhoe Cat 416 Backhoe Cat 416 at	Set up field trailer, 8'x12' 2 laborer	<u>Construction fence</u> 2 laborer	Surface Water Management 2 laborer 1 operator Excavator Cat 330 Compactor Cat 563 Compactor Walk behind Excavator Cat 330 at Compactor Cat 563 at Compactor Cat 300 at	Excavate ditch 1 teamster 1 laborer 1 operator Excavator Cat 330 Haul fruck Haul truck at Excavator Cat 330 at	. Site Personal in the second
ITEM	õ	. 0 0	Q	٥	۵۵	۵۵۵	3

FLUOR FERNALD PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY05 ESTIMATE NO.: C2-2001-05-007-25

DOE 1.1.C.D

CLIENT: WBS NO.:

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TOTAL		\$1,360 \$1,620 \$1,100 \$630	
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	Equip	11,490 6,820 32.15 24.90	
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L	Labor		
L	Rate	22.65	
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MAN-HOURS	Total		
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Site Prep cont'd		15 15 15 15 15 15 15 15 15 15 15 15 15 1	l
Site		ners 6 treene t 966 t 966	
		at-up screeners & comquires 2 screeners 2 laborer 2 operator Excavator Cat 330 Loader Cat 966 Excavator Cat 366 at Loader Cat 966 at	
		Set-up screeners & conveyors requires 2 screeners 2 laborer 2 operator Excavator Cat 330 Loader Cat 966 Excavator Cat 330 at Loader Cat 966 at	
ITEM	Š.		\dashv

RESIDENCE AND SECUCION OF THE

DETAIL ESTIMATE WORKSHEETS

17-May-01 DATE \$17,000

\$17,000

140

Survey
Cost shared among OSDF projects
at \$140/hr for 3 man crew.
Borrow area allocation = \$17,000

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17-May-01 RIS FERNALD CCPL2	TOTAL		
DATE: 17-May- ESTIMATOR: RIS LOCATION: FERNAI TASK NO.: CCPL2	EQUIP		
	MAT'L		
	S/C		
	LABOR		
		Equip	
Q7	UNIT	Mat'i	
FERNALD	COSTAUNIT	S/C	
FEF		Labor	
C		Rate	
9	ours		
77	MAN-HOURS	Total	
	L	Cult	
3PL2 F	QTY UNIT		
AREA CC	ΩTY		
RROW /			
LINE BC 107-25		1	
PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY05 ESTIMATE NO.: C2-2001-05-007-25 CLIENT: DOE WBS NO.: 1.1.C.D			
OSDF VO.: C2-20 DOE 1.1.C			
PROJECT: ESTIMATE N CLIENT: WBS NO.:			
PRO EST CLIE WBS	ITEM	NO.	

RNALD DATE: 17-May-01 ESTIMATOR: RIS

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DATE:	ESTIMATOR: RIS	LOCATION: FERN	ASK NO.:	
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AREA CCPL2 FY05	-			
ORROW AREA CCPL2 FY05				
SELINE BORROW AREA CCPL2 FY05				
OSDF BASELINE BORROW AREA CCPL2 FY05		300	1.1.C.D	
PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY05	C2-2001-05-007-25	CLIENT: DOE	WBS NO.: 1.1.C.D	

TOTAL				\$80,460	\$39,860	\$53,390	\$8,630	\$93,340 \$27,700	\$128.440		\$1,780	\$290	\$29,670	\$5,800	\$48,100	\$18,630	\$81,140	\$50,860	\$600	\$1,200		\$32,000	\$18,920	\$7,930	\$21,240	\$18,560	\$51,080	\$11,800	\$9,560	\$24,200		חומנאו/הפצע
EQUIP						\$53,390	\$8,630	\$93,340	\$21,100		\$1,780	\$290	\$29,670	\$5,800	\$48,100	\$18,630	\$81,140	\$50,860	009\$	\$1,200					\$21,240	\$18,560	\$51,080	\$11,800	\$9,560	\$24,200	200000000000000000000000000000000000000	1985年 19
MAT'L		No. Philips Street Const.																							· Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Ann	ahaanan					distribution and the second	
S/C																			•												A STATE OF THE PARTY OF THE PAR	
LABOR				\$80,460	\$39,860									•								\$32,000	\$18,920	\$7,930							of the second se	00759874
	Equip					13,145	2,125	11,490	7,905	FF owned	438	145	39.66	7.75	32.15	24.90	27.12	34.00	0.80	1.60				- !	13,145	11,490	7,905	39.66	32.15	27.12	BOST DECEMBER OF THE	Constant Con
TIND	Mati									<u>u</u>				٠																	a consistence of	
COST/UNIT	S/C	ř																													denogrammen at	
	Labor											•																			edia Soleda Sole (or	##524748 ##################################
	Rate			22.86 27.03	22.65																	22.86	27.03	22.65								\$24%
MAN-HOURS				3,520	1,760			~~~					All recognition		-				-			1,400	200	320								
Ž	Chit			9 9	9								748	748	748	748	748	748	748	748	છા	10	9	9				298	298	298		
TIND				DA∀			Ξ Σ	I V	Ξ] Ξ Σ	Σ¥	MTH	MTH	HRS	HRS	HRS	HRS	HRS	HRS	HRS	HRS	& topsoil layers				Σ Σ			HRS	HRS			ELO II
OTY				88	88	4.06	4.06	4.06	4.05	4.06	4.06	4.06	82%	85%	85%	85%	85%	85%	85%	85%		32	32	32	1.62	1.62	1.62	85%	85%	85%		
94	·		-	-		1 reqd	1 reqd	2 reqd	1 requ	conv for 2 read	1 reqd	1 reqd					•	at		at	ontouring, Vegetati				1 reqd	1 reqd	4 redd					ing take taken an and
Screening			Screening	4 teamster	2 laborer	Dozer, D8	Tractor 4WD 75hp	Excavator Cat 330	Loader Cat 966	Screener, Extec w/2 conv for 2 redd	2" pump	Generator, 5000 kw	Dozer, D8 at	Tractor 4WD 75hp	Excavator Cat 330 at	Loader Cat 966 at	Truck, Volvo A30, at	Screener, w/2 conv at	2" pump at	Generator, 5000 kw at	Excavate & Stockpile Contouring, Vegetative.	4 teamster	2 operators	1 laborer	Dozer, D8	Excavator Cat 330	Truck, Volvo A30	Dozer, D8 at	Excavator Cat 330 at	Truck, Volvo A30, at		
ITEM	Ö.		-21	۵۵	۵۵									_							Ш	۵	۵	۵								

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY05 ESTIMATE NO.: C2-2001-05-007-25 CLIENT: DOE

WBS NO.:

SDF BASELINE BORROW AREA CCPL2 FY05		DATE: 17-May-01	17-May-01
2001-05-007-25		ESTIMATOR: RIS	RIS
36	TOOS LUKNALD	LOCATION: FERNALD	FERNALD
.c.D		TASK NO.: CCPL2	CCPL2

	i.	5,410	\$9,060 \$7,610 \$1,960	\$4,210 \$1,320	\$300	\$3,000 \$28,930						\$61,800
TOTAL		•				\$ 2	٠					200
_			\$7,610	\$4,210 \$1,320								教育を514,470 (次元//、528/930 (沙洋教報53/300 (京学教験515/100 (春
EQUIP												3
2					\$300	\$3,000						23,300
MAT'L					•							
0						\$28,930		 				28,930
S/C			·			₩.						\$ 20.00
OR N		\$5,410	090'6\$							····		14,470
LABOR												\$
Γ	Equip		8,245	24.76								
FIN	Mat'i				0.30	09.0						
COST/UNIT	s/c					0.83		 	 ·			
	Labor						······································	 				
\vdash	Rate	27.03	2.65									\$ 24M2
JRS			•								1	
MAN-HOURS	Total	200	4			•		•				009
Σ	Chit	10	9	170								
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ξ		20		85% 85%	1,000	5,000						
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_						7.5						OU WE
Interim Restoration			v Holind	e								estorati
Interim		బ	LGP as Nev	t LGP al WD, 75		-jute seeding						iterimir
		1 operators	2 laborer Dozer, D6 LGP Tractor price as New Hollnd 4W	Dozer, D6 LGP at Tractor, 4WD, 75hp	Silt fence	Erosion mat -jute Permanent seeding						
ITEM	NO.			ό Γ	Silt	Eros	-					King was well free miles so allowed to the control of the order
上		<u> </u>							 			*

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY05 ESTIMATE NO.: C2-2001-05-007-25 CLIENT: DOE

1.1.C.D WBS NO.:

FLUOR FERNALD

Demobilization GTV Unit Total Rate Loss Total ANTIL EQUIP Demobiliza confractor equipment 20 EA 3 70 23.64 \$1,650 \$2,360 Demobilizacionistica equipment 2 EA 60 120 24.83 \$2,360 \$2,360	-						
3 70 60 120	TOTAL			\$1,650	\$2,980		0891/83
3 70 60 120	EQUIP						
3 70 60 120	MAT'L						
3 70 60 120	S/C			-			
3 70 60 120	LABOR			. \$1,650	\$2,980		*************************************
3 70 60 120		Equip	7				
3 70 60 120	T/UNIT	Mat'i					
3 70 60 120	SOO	S/C					
3 70 60 120		Labor					
3 70 60 120	S	Rate		23.64	24.83		
Unit	AN-HOUR	Total		70			
Demobilization of virtual of virt				က	09		ر المالية
Demobilization arry Demobilization Demobilization Demobilization Demobilization Demobilization Demobilization	TIND						I COL
D Demobilize contractor equipment D Demob screeners	QTY			70	. ~	·	
NO. D D	Demobilization						
	ITEM	Ñ.		۵	۵		(Shide

CONTRACTOR - Stated in FY01 DOLLARS

s:lestimatelosof uday k formatiborrow arealbaseline ccpi2 ba 25.xts

DETAIL ESTIMATE WORKSHEETS

FLUOR FERNALD PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY05
ESTIMATE NO.: C2-2001-05-007-25
CLIENT: DOE

1.1.C.D

WBS NO.:

_	00000	0	35.
TOTAL	\$5,690 \$3,950 \$12,310 \$6,190 \$26,170 \$28,300	\$82,610	
EQUIP			W. W. W. W. S. S.
MAT'L			
S/C			MINK WESTERN
LABOR	\$5,690 \$3,950 \$12,310 \$6,190 \$26,170 \$28,300	\$82,610	
	Equip		
COST/UNIT	Mat'l		NAME:
COST	SIC		N. S. WAR
	Labor		
•	Rate 54.42 37.85 32.99 33.19 28.05 30.34 19.31	31.36	
MAN-HOURS	Total 104 373 187 933 933	2,634	
	Unit		
TINO	4444		
QTY	Shared 10% 10% 10% 25% 25% ad ad ad		
	S 9.5 mth 9.5 mth 9.5 mth 9.5 mth 9.5 mth in overhead in overhead in overhead	TOTAL	
	Project Staffing Project Manager General Superintendent Superintendent Superintendent Project Engineer Quality Engineer Safety Engineer Office Administration in overhead Contract Administration/ Schedu in overhead Clerical		
ITEM	0 0 0 0 0 0 0 0		**************************************

APPENDIX "C"

HEALTH PHYSICS

PROJECT:

WBS NO .:

OSDF BASELINE BORROW AREA COLUMN FERNALD

17-May-01

ESTIMATE NO. C2-2001-05-007-25 CLIENT: DOE

1.1.C.D

ESTIMATOR: RIS LOCATION: FERNALD TASK NO.: CCPL2

PPE"s - PERSONAL PROTECTIVE EQUIPMENT

		UNIT	* NO. OF CHANGE OUTS PER WORKER PER DAY								
DESCRIPTION	UNIT	COST	Man Da	DAY)							
PPE LEVEL C / C+ / B : F/HF MASK W/RESP.&CAI	RT.		*	MAN DAYS	MAT'L.\$'s	PPE LEVEL					
TYVEK COVER-ALL W/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	. 0	\$0	C / C+					
TYVEK COVER-ALL W/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	0	\$0	C / C+	(DOUBLE PPE)				
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	0	\$0	C / C+					
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	0	\$0	C / C+					
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	0	\$0	C/C+					
APR CARTRIDGES - DISPOSABLE	PR	\$6.98	3	0	\$0	C/C+					
SUB-TOTAL		\$17.42	3		50						
				\$/MD =	\$0.00						

\$0.00

PPE LEVEL mC: FULL DRESS w/ FACE SHIELD				MAN DAYS	MAT'L.\$'s	PPE LEVEL
LT.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIE	PR	\$4.46	3	0	\$0	mC
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	0	\$0	war mC
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	0	\$0	mC mC
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	0	\$0	, mC
SUB-TOTAL		\$5.98	. 3		50	
	The state of the same of	of the second second		6/4/0	20.00	

\$0.00 \$/MD =

SUBCONTRACTOR REQUIRED PURCHASES			QTY. PER WKR.	NO. OF WORKERS	MAT'L.\$'s	PPE LEVEL
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	\$12.70	2	8	\$203	D/C/B
APR w/HALF FACE MASK - (1) PER WORKER	EA	\$22.30	6	0	\$0	,C
APR w/FULL FACE MASK - (1) PER WORKER	EA	\$174.00	6	0	\$0	, C
SCBA	EA	\$1,894.00	. 2	0	\$0	× B
COOL VESTS	EA	\$137.50	6	0	\$0	C/B
THERMO STRIPS	EA	\$50.00	6	0	\$0	C/B
SUR-TOTAL					000000000000000000000000000000000000000	

TOTAL PPE's =

MAT'LS's \$200

(FORWARD TO PAGE 2 OF 2)

OTHER PPE'S SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. COSTS OF FD FERNALD SUPPLIED PPE's, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCURRED BY FD FERNALD AND COSTS ARE NOT INCLUDED AS PART OF PROJECT COSTS AT THIS TIME.

APPENDIX "C"

OSDF BASELINE BORROW AREA CCPL2 FY05 PROJECT:

ESTIMATE NO. C2-2001-05-007-25

CLIENT: WBS NO.: DOE 1.1.C.D

17-May-01 DATE: **ESTIMATOR: RIS**

LOCATION: FERNALD TASK NO.: CCPL2

-MEDICAL MONITORING -

·						
MEDICAL - PHYSICAL and IN-	/IVO MC	NITORING	- LOST	WORKER '	TIME for RAD	II WORKERS
					AVG.	
DESCRIPTION	QTY	HRS	WKR	TOTAL	LABOR	TOTAL
PHYSICAL (3hrs), IN-VIVO (1hr)				HOURS	RATE	LABOR \$
BASELINE PHYSICALS	1	4	. 0	0	\$26.04	\$0
ANNUAL PHYSICALS	0	4	. 0	0	\$26.04	\$0
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	0	0	\$26.04	\$0
SUB-TOTAL						\$0

RADIATION IN-VITR	O SURVEILLA	NCE - LOS	T WOR	KER TIME	for RAD II WC	RKERS ONLY
DESCRIPTION	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR \$
BI-MONTHLY BIOASSAY	6	1	0	0	\$26.04	\$0
SUB-TOTAL						\$0

RANDOM DRUG TESTING

TESTS	HRS	TOTAL HOURS	AVG. RATE	LABOR \$'s	
1	2	2	\$26.04	\$100	
TESTING	AVG. NO.	CHANCE/	NO. OF WKRS.	CHANCES	CONSTR
DAYS	OF TESTS	DAY	FOR THIS	DAY FOR TEST	WORKING
PER YR.	PER DAY	FOR TEST	ESTIMATE	FOR PROJECT	DAYS
226	10	0.0042735	2	0.0085	135
	1 TESTING DAYS PER YR.	1 2 TESTING AVG. NO. DAYS OF TESTS PER YR. PER DAY	1 2 2 TESTING AVO. NO. CHANCE/ DAYS OF TESTS DAY PER YR. PER DAY FOR TEST	1 2 2 \$26.04 TESTING AVO. NO. CHANCE! NO. OF WKRS. DAYS OF TESTS DAY FOR THIS PER YR. PER DAY FOR TEST ESTIMATE	1 2 2 \$26.04 \$\$\frac{1}{2}\$\$\fr

	LABOR \$'s THRU SAFETY	LABOR \$'s	•
WORK DELAYS CAUSED BY MONITORING 0.0%	\$428,120	\$0	
		LABOR \$'s	
WORK DELAYS CAUSED BY RAD CHECKING 0.0%	\$428,120	\$0	
	TOTAL	TOTAL	GRAND TOTAL

TOTAL HEALTH PHYSICS \$100 \$200 \$300

(FORWARD TO ESTIMATE SUMMARY SHEET)

ESTIMATE SUMMARY SHEET

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY06

ESTIMATE #: C2-2001-05-007-26

CLIENT: DOE WBS #: 1.1.C.D

FLUOR FERNALD

DATE:

17-May-01

ESTIMATOR: RIS LOCATION: FERNALD

TASK NO.: CCPL2

Submittals	ITEM DESCRIPTION	M/H	RATE	LABOR\$	S/C \$	MAT'L\$	EQUIP. \$	TOTAL\$
Submittals	Security of Security				950 100		. }	\$50,190
S298,720 \$298,720 \$298,720 \$298,720 \$298,720 \$298,720 \$298,720 \$298,720 \$298,720 \$34,700 \$34,700 \$34,700 \$34,700 \$34,700 \$34,700 \$34,700 \$34,700 \$34,800 \$34,800 \$34,800 \$34,800 \$34,470 \$28,930 \$34,800 \$34,470 \$28,930 \$34,800 \$34,470 \$28,930 \$34,600 \$34,470 \$28,930 \$34,600 \$34,630 \$34,6		204	1	COE 050	\$50,190	6200	İ	
## April	•	694		\$25,250	6200 720	\$200	Ì	
Site Preparation S60 \$13,310 \$8,780 \$9,490 \$31, Screening 11,690 \$286,200 \$38,310 \$893,380 \$990, mile the first Restoration 600 \$14,470 \$28,930 \$3,150 \$15,220 \$81, 320 \$31,500 \$4,63	Overnead and Profit				\$298,720			\$290,120
11,690 \$286,200 \$694,380 \$980 \$980 \$14,470 \$28,930 \$3,150 \$15,220 \$61,220	Nobilization	70		\$1,650	\$8,470	\$4,700		\$14,820
11,690 \$286,200 \$394,330 \$980 \$980 \$3,150 \$15,220 \$61,320	Site Preparation	560		\$13,310		\$8,780	\$9,490	\$31,580
Survey Single S	Screening	11,690		\$286,200			\$694,380	\$980,580
Survey \$17,000 \$17 Project Staffing 2,662 \$83,480 \$17,000 \$18 SBJPERVISION - CONTRACTOR \$403,310 \$16,830 \$719,090 \$1,568 SUPERVISION - CONTRACTOR \$6,100 \$6 MISC. EQUIP. RENTAL \$6,100 \$23,700 \$23 TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization JOB CLEAN-UP ind w/Mobilization JOB CLEAN-UP ind w/Mobilization JOB CLEAN-UP ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization JOB CLEAN-UP	nterim Restoration	600		\$14,470	\$28,930	\$3,150	\$15,220	\$61,770
DIRECT FIELD COSTS TOTAL 16,466 \$26.05 \$428,990 \$403,310 \$16,830 \$719,090 \$1,568	Demobilization	190		\$4,630	l			\$4,630
DIRECT FIELD COSTS TOTAL 16,466 \$26.05 \$428,990 \$403,310 \$16,830 \$719,090 \$1,568		1						
DIRECT FIELD COSTS TOTAL 16,466 \$26.05 \$428,990 \$403,310 \$16,830 \$719,090 \$1,568						1		
DIRECT FIELD COSTS TOTAL								
DIRECT FIELD COSTS TOTAL	·		,		•			
DIRECT FIELD.COSTS TOTAL	Sunov				\$17,000			\$17,000
DIRECT FIELD COSTS TOTAL 16,466 \$26.05 \$428,990 \$403,310 \$16,830 \$719,090 \$1,568 SUPERVISION - CONTRACTOR SMALL TOOLS & CONSUMABLES \$6,100 \$6 MISC. EQUIP. RENTAL \$23,700 \$23 TEMPORARY FACILITIES ind w/Mobilization JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAININIG ind w/Submittals CERCLA - TRAININIG ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888	Survey				Ψ.7,000			411,000
SUPERVISION - CONTRACTOR SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX INDIRECT FIELD COSTS TOTAL DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$653,490 \$403,310 \$24,330 \$787,390 \$1,888	Project Staffing	2,662		\$83,480			•	\$83,480
SUPERVISION - CONTRACTOR SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX INDIRECT FIELD COSTS TOTAL DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888								
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SUPERVISION - CONTRACTOR SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX INDIRECT FIELD COSTS TOTAL DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$653,490 \$403,310 \$24,330 \$787,390 \$1,888								
SUPERVISION - CONTRACTOR SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX \$1,400 \$44,600 \$46 INDIRECT & INDIRECT FIELD COSTS TOTAL DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888								
SUPERVISION - CONTRACTOR SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX \$1,400 \$44,600 \$46 INDIRECT & INDIRECT FIELD COSTS TOTAL DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888								
SUPERVISION - CONTRACTOR SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX \$1,400 \$44,600 \$46 INDIRECT FIELD COSTS TOTAL DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888	:							
SUPERVISION - CONTRACTOR SMALL TOOLS & CONSUMABLES MISC. EQUIP. RENTAL TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX \$1,400 \$44,600 \$46 INDIRECT & INDIRECT FIELD COSTS TOTAL DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888	DIRECT FIELD COSTS TOTAL	16.466	\$26.05	\$428,990	\$403.310	\$16.830	\$719,090	\$1,568,220
\$23,700 \$23					, , , , , , , , , , , , , , , , , , , ,			
MISC. EQUIP. RENTAL TEMPORARY FACILITIES ind w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/st PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX INDIRECT FIELD COSTS TOTAL DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888	· · · · · · · · · · · · · · · · · · ·	-	-	-		. \$6,100		\$6,100
TEMPORARY FACILITIES incl w/Mobilization TEMPORARY UTILITY HOOK-UP ind w/Mobilization JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX INDIRECT FIELD COSTS TOTAL DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888	·	-		-			\$23,700	\$23,700
JOB CLEAN-UP ind w/Job Close-out PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C ind w/Submittals CERCLA - TRAINING ind w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX INDIRECT FIELD COSTS TOTAL DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888	TEMPORARY FACILITIES incl w/Mobilization							
PER DIEM / SUBSISTANCE HEALTH PHYSICS S/C incl w/Submittals CERCLA - TRAINING incl w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/st PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX INDIRECT FIELD COSTS TOTAL DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888	TEMPORARY UTILITY HOOK-UP ind w/Mobilzation	ŀ	·					
HEALTH PHYSICS S/C incl w/Submittals CERCLA - TRAINING incl w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/st PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX \$1,400 \$44,600 \$46 INDIRECT FIELD COSTS TOTAL DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888	JOB CLEAN-UP incl w/Job Close-out							
CERCLA - TRAINING incl w/Submittals GET/SITE ACCESS & JOB SPECIFIC TRAINING w/st PAYROLL BURDENS & BENEFITS OVERHEAD & PROFIT BOND SALES TAX \$1,400 \$44,600 \$46 INDIRECT FIELD COSTS TOTAL DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888	PER DIEM / SUBSISTANCE	-	-	-				•
GET/SITE ACCESS & JOB SPECIFIC TRAINING w/st \$244,500 \$244,500 \$244 PAYROLL BURDENS & BENEFITS - - \$244,500 \$244 OVERHEAD & PROFIT - - - - BOND - - - - \$1,400 \$44,600 \$46 SALES TAX - - - \$1,400 \$44,600 \$46 INDIRECT FIELD COSTS TOTAL \$244,500 \$7,500 \$68,300 \$320 DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888	HEALTH PHYSICS S/C incl w/Submittals							_
PAYROLL BURDENS & BENEFITS - \$244,500 \$244 OVERHEAD & PROFIT	CERCLA - TRAINING incl w/Submittals							
OVERHEAD & PROFIT BOND SALES TAX \$1,400 \$44,600 \$46 INDIRECT FIELD COSTS TOTAL DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888	GET/SITE ACCESS & JOB SPECIFIC TRAINING w/su		•					
BOND SALES TAX - - - - \$1,400 \$44,600 \$46 INDIRECT FIELD COSTS TOTAL \$244,500 \$7,500 \$68,300 \$320 DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888	PAYROLL BURDENS & BENEFITS	-	-	\$244,500				\$244,50
SALES TAX - - - \$1,400 \$44,600 \$46 INDIRECT FIELD COSTS TOTAL \$244,500 \$7,500 \$68,300 \$320 DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888	OVERHEAD & PROFIT	-		-				
INDIRECT FIELD COSTS TOTAL \$244,500 \$7,500 \$68,300 \$320 DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888	BOND	-	-	-				
DIRECT & INDIRECT FIELD COSTS TOTAL 16,466 \$40.90 \$673,490 \$403,310 \$24,330 \$787,390 \$1,888		-	-	-				
								\$320,30
	DIRECT & INDIRECT FIELD COSTS TOTAL	16,466	\$40.90	\$673,490	\$403,310	\$24,330	\$787,390	\$1,888,52
TARGET ESTIMATE (FY.01 DOLLARS) \$1,888	TARGET ESTIMATE			(FY 01 DC	OLLARS)	i i i je i state.		\$1,888,50

ESTIMATE PERFORMED BY ESTIMATING SERVICES

ES	TIMATE SUMM	ARY SHE	ET			
PROJECT: OSDF BASELINE BORROW AREA CCPL2 F				`	DATE:	17-May-01
ESTIMATE NO. C2-2001-05-007-26	FACTOR	RS			ESTIMATOR:	RIS
CLIENT: DOE WBS NO.: 1.1.C.D					LOCATION: TASK NO.:	FERNALD CCPL2
FIXED PRICE (LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE\$	TOTAL \$
DFC DOLLARS	\$428,990	\$403,310	\$16,830	\$719,090		\$1,568,220
IFC COST FACTOR	1.5699		1.3624	1.0330		
BOND + OVERHEAD & PROFIT COST FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
SALES TAX	-	-	1.0600	1.0600	1.0600	
DIRECT FIELD COST FACTOR =	1.5699	1.0000	1.4442	1.0949	1.0600	
BASE ESTIMATE \$'S	\$673,490	\$403,310	\$24,306	\$787,357		\$1,888,463
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
TARGET ESTIMATE FACTOR	1.5699	1.0000	1.4442	1.0949	1.0600	
FPS TARGET ESTIMATE (FY01 \$)	\$673,490	\$403,310	\$24,306	\$787,357		\$1,888,463

NOTE:

IF THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

PROJECT:	OSDF BASELINE BORROW AREA CCPL2 F C2-2001-05-007-26		ATE SUMN		=== 1		DATE: ESTIMATOR:	17-May-01 RIS
CLIENT:	DOE 1.1.C.D		FACT	1			LOCATION:	FERNALD CCPL2
WBS NO.: PAY ITEM NO.			LABOR \$	S/C \$	MAT'L.\$	EQUIP. \$	TASK NO.: PPE \$	TOTAL \$
FAI HEINING.	DESCRIPTION				E MAT'L.\$'S)-		FFE 4	TOTAL
			(ACCION CIT				a service to	
	Insurance & Bond			50,190 \$50,190				50,19 \$50,19
	Submittals		25,250		200			25,45
	Sastimals		\$39,640		\$290		į t	\$39,93
	Overhead and Profit			298,720				298,72
				\$298,720				\$298,72
	·							
	Mobilization		1,650 \$2,590	8,470 \$8,470				14,82 \$17,85
• •	Site Preparation		13,310		8,780	.9,490		31,58
	John Francisco		\$20,900		\$12,680	\$10,390		\$43,97
	Screening		286,200			694,380		980,58
		•	\$449,320			\$760,300		\$1,209,62
	Interim Restoration		14,470 \$22,720			15,220 \$16,660		61,77 \$72,86
					\$4,550	\$10,000		
	Demobilization		4,630 \$7,270					4,6 \$7,2
• .								
							·	
				*				
	Survey			17,000				17,0
				\$17,000				\$17,0
	Project Staffing		83,480 \$131,060					83,4 \$131,0
	·		\$151,000					\$131,0
	· · · · · · · · · · · · · · · · · · ·							
TOTAL DIRECT			\$673,500	\$403,310	\$24,310	\$787,350		\$1,888,4

			•	

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY06
ESTIMATE NO.: C2-2001-05-007-26
CLIENT: DOE
WBS NO.: 1.1.C.D

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E .		5		1011	Total T	otog	1040	3 0	Mari	Gardo	Yogy		7 11 11	1087	
2				1	i dia	1	Labor	200	Mari	daib					
	Insurance & Bond											\$50,190			\$50,190
	Suhmittals				694	-					\$25,250		\$200		\$25,450
	Overhead and Profit				•							\$298,720		•	\$298,720
	Mobilization				92						\$1,650	. \$8,470	\$4,700		\$14,820
	Site Preparation				260	-					\$13,310		\$8,780	\$9,490	\$31,580
	Survey							<u></u>				\$17,000			\$17,000
	Screening				11,690						\$286,200			\$694,380	\$980,580
	Interim Restoration				009	_				:	\$14,470	\$28,930	\$3,150	\$15,220	\$61,770
•	Demobilization				190	•.			·		\$4,630				\$4,630
		•													
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							-								
						<u>-</u> .									
			•												
	Project Staffing				2,662	- <u>-</u>					\$83,480				\$83,480
					•										
			_				2		See All Annual Property	The state of the s	COO COOK ADAM	() () () () () () () () () ()	1000 C 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-00030XL+330	New Year
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DATE: 17-May-01
ESTIMATOR: RIS
LOCATION: FERNALD
TASK NO.: CCPL2

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY06
ESTIMATE NO.: C2-2001-05-007-26
CLIENT: DOE
WBS NO.: 1.1.C.D

No.													
Insurance & Bond 1.3%	TOTAL		·.	\$50,190	\$9,110 \$7,590 \$8,450		\$300	\$25,450	\$298,720				
Insurance & Bond 1.3% Unit Total Rain Lacor SCG Unit Total Rain Lacor SCG Unit Lacor SCG Unit Lacor Lacor SCG Unit Lacor Lacor SCG Unit Lacor Laco	EQUIP									<u>-</u>			
Instrume & Bond	MAT'L						\$200	\$200					
Insurance & Bond 1.3% Unit Total Rate Labor SIC Mart Etup Performance bond 1.3% THRU THR	s/c			\$50,190					\$298,720				
Sub-total and Profit Cokrum Cokru	LABOR				\$9,110 \$7,590 \$8,450	· · ·	\$100	\$25,250					
Cost Cost		Equip								***************************************			+
Continue & Bond 1.3% Performance & Bond 1.3% Performance & Bond 1.3% The Insurance & Bond 1.3% The Insurance & Bond 1.3% The Insurance & Bond 1.3% The Insurance T	JUNIT	Mat'i											
Continue & Bond 1.3% Performance bond 1.3% Insurance & Bond 1.3% Insurance bond 1.5% Insurance bond 1.5% Insurance bond 1.5% Insurance bond 1.5% Insurance bond 1.5% Insurance	COST	S/C	THRU	1792332									1
Continue Continue		Labor											
Continue	 	Rate		-	50.62 50.62 26.05	<u></u>	23.64		:-		 	·	
Insurance & Bond I 1.3% Insurance bond I 1.3% Insurance bond I 1.5% Insurance bond I 1.5% Insurance I 1.5% I	AN-HOURS	Total			180 150 360		4	694					
Insurance & Bond Performance bond Insurance For both FY Sub-total Submittals Plans Site access & GET traing, cnstrct work Sub-total Sub-total Overhead and Profit	W.				30	•	-		20%				1
Insurance & Bond Performance bond Insurance For both FY Sub-total Submittals Plans Site access & GET traing, cnstrct work Sub-total Sub-total Overhead and Profit	UNIT				ឱឱជ								
Insurance & Bond Performance bond Insurance For both FY Sub-total Submittals Plans Technical submittals Site access & GET traing, cnstrct Sub-total Overhead and Profit					30 20 20		· .		3000°				
			1.3%	2.8%	ng, cnstrct work								
			Performance bond	or both FY Sub-total	<u>Submittals</u> Plans Fechnical submittals Site access & GET trai		lealth Physics	Sub-total	Verhead and Profit				
	ITEM			-					OI_		 44. * 	•	\dashv

DOE 1.1.C.D CLIENT: WBS NO.:

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY06
ESTIMATE NO.: C2-2001-05-007-26

FLUOR FERNALD

TOTAL		\$6,720		\$1,630 \$520 \$4,300	\$1,650			M. S.1.4;820
						•	•	
EQUIP				-				
Ū				•			•	
MAIL	2.3			\$400			. ,	\$4,700
ž								
S/C		\$6,720		\$1,630				30 200 200 200 200 200 200 200 200 200 2
LABOR					\$1,650			\$1,650
	Equip		···					
VONIT	Matil		. ·	40			•	
COST/UNIT	s/c	350		8 2				
	_			_	· · · ·			
	Labor							
	Rate				23.64			
SS	_				70			100
MAN-HOURS	Total							
-	Cult			:	က			
	:44							
LIND		MO	-	MTH	<u> </u>			
αTY		9.6		9.6 9.6	50			
		2 reqd	***************************************	2 ea 8/jug		•		
		. <u>v</u>		nth, \$	nent			
Mobilization		rt traile		/ 5jug/r	ndinpe			allon
10pil		ioddn		Allow	actor			Alidon
2		s / ss	•	tollets vater,	contre			N. S. S. S. S. S. S. S. S. S. S. S. S. S.
		Heat stress / support trailers		2 ea Potable water, Allow 5jug/mth, \$8/jug	Mobilize contractor equipment			Wobilization Val
لــ		<u>.</u>		<u> </u>	Δ			
		L						麥

DATE: 17-May-01
ESTIMATOR: RIS
LOCATION: FERNALD
TASK NO.: CCPL2

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY06
ESTIMATE NO.: C2-2001-05-007-26
CLIENT: DOE
WBS NO.: 1.1.C.D

TOTAL		\$300 \$1,360 \$810 \$390 \$220	\$3,500 \$910	\$2,780 \$4,530	\$910 \$1,240 \$1,240 \$10 \$10 \$320 \$150 \$2,100 \$100	\$230 \$230 \$810 \$1,850 \$160	New York
Eduip		\$390 \$220			\$1,240 \$470 \$110 \$320 \$150 \$40	\$1,850 \$160 \$140	AND PROPERTY IN
MAT'L		\$300	\$3,500	\$2,780	\$2,100		* CHARACTER *
S/C							WHALLESTER CONTROLLING AND AND AND AND AND AND AND AND AND AND
LABOR		\$1,360 \$810	\$910	\$4,530	\$910 \$540	\$230 \$230 \$810	White worth
	Equip	2,800			11,490 4,335 985 32.15 15.48 1.80	11,490 160 16.05 32.15	
TINO	Matil	0.30	3,500	\$1.05			SA INSERTED BETTER FOR
COST/UNIT	S/C						
	Labor					and the second s	
	Rate	22.65	22.65	22.65	22.65	22.86 22.65 27.03	
MAN-HOURS	Total	300	40	200	20	30 10	
2	Unit	10 10	10	10	00 00	00 C C C C C C C C C C C C C C C C C C	
TIND		LF DAY DAY MTH HRS	DAY	LF DAY	DAY MTH MTH HRS HRS HRS LF	DAY DAY MTH DAY HRS	
ΩTY		1,000 LF 3 D/ 3 D/ 0.14 MJ	7	2,650	0.09 0.09 0.09 0.09 170 160	0.0 4.0 4.	AND THE
		85%		2 wks	2 day : 2 day : 2 day : 50% 50% 85% 12cy	3 day : 85% 85%	
Site Preparation		Silt fence 2 laborer 1 operator Backhoe Cat 416 Backhoe Cat 416	Set up field trailer, 8'x12' 2 laborer	Construction fence 2 laborer	Surface Water Management 2 laborer 1 operator Excavator Cat 330 Compactor Cat 563 Compactor Walk behind Excavator Cat 330 at Compactor Cat 563 at Compactor Cat 830 at Compactor Walk behind at 30" CMP Bedding	Excavate ditch 1 teamster 1 laborer 1 operator Excavator Cat 330 Haul truck Haul truck at Excavator Cat 330 at	EXAMINATION SILESTED BEING THE STATE OF THE
ITEM	Š	۵۵	۵	۵	۵۵	000	

CONTRACTOR - Stated in FY01 DOLLARS

steetimatelosdf uday k formatiborrow arealbaseline ccpl2 ba 28 xls

DETAIL ESTIMATE WORKSHEETS

DATE: 17-May-01 ESTIMATOR: RIS

LOCATION: FERNALD
TASK NO.: CCPL2

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY06
ESTIMATE NO.: C2-2001-05-007-26
FLUOR FERNALD

DOE 1.1.C.D

CLIENT: WBS NO.:

Γ.		\$1,360 \$1,850 \$1,100 \$630	280
TOTAL			34.48.513;310
		\$1,850 \$1,100 \$820 \$630	490
EQUIP		∾ ∾ .	65 (4)
L			780
MAT'L			\$88
F			
S/C			
Ĺ			
LABOR		\$1,360 \$1,620	13,310
3			*****
	Equip	11,490 6,820 32.15 24.90	
	\vdash		
COST/UNIT	Mati		
Sos	S/C		
	ъ		
L	Labor		
_	Rate	22.65	
URS	 	88	260
MAN-HOU	Total		
	JE S	10 26 26 26	
L	L		
LINS		3 3 DA	0.18
ρŢζ		0.14 0.14 85% 85%	
		3 day -	AND THE PROPERTY OF THE PROPER
_			
Site Pren cont'd		Set-up screeners & conveyors 2 laborer 2 operator Excavator Cat 330 Loader Cat 966 Excavator Cat 366 Loader Cat 966 at	aranor
ta Pre		Set-up screeners & converging to the converging of the convergence of the converging to the converging	
Ĭ,		at-up screeners & guires 2 screene 2 laborer 2 operator Excavator Cat 3 Excavator Cat 3 Excavator Cat 966 Loade	IIS W
		Set-up 2 lat 2 lat 2 lot Coac Loac Exce Loac	
ITEM	ò		

CONTRACTOR - Stated in FY01 DOLLARS

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DETAIL ESTIMATE WORKSHEETS

FLUOR FERNALD PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY06 ESTIMATE NO.: C2-2001-05-007-26 CLIENT: DOE WBS NO.: 1.1.C.D

\$17,000	000/215 3233 0 (8.246 23) (2.24600 (8.2422) (2.2422) (2.2422) (2.2422) (2.2422) (2.2422) (2.2422)
\$17,000	1888 1884 1884 1888 1888 1888 1888 1888 1888 1888 1888 1888
\$17,000 \$17,000	**
LABOR S/C \$17,000	8 88 17 17 17 17 17 17 1
LABOR	The second secon
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Equip	
Mari	
S/G MB	
Labor	HADIVIOUS CONTRACTOR OF THE CO
Rate	#DIX/0集
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TIND	TOT
QTY .	MINIST.
Survey Cost shared among OSDF projects at \$140/hr for 3 man crew. Borrow area alloocation = \$17,000	te en en en en en en en en en en en en en
No. No. Court at \$8 at \$	

DOE 1.1.C.D CLIENT: WBS NO.:

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY06
ESTIMATE NO.: C2-2001-05-007-26

FLUOR FERNALD

TOTAL		\$5,410 \$9,060 \$7,610 \$2,080	\$4,210 \$1,320	\$150	\$3,000		35611770
EQUIP		\$7,610 \$2,080	\$4,210 \$1,320				[88] [88] [88] [88] [814] [82] [83] [83] [83] [83] [83] [83] [83] [83
MAT'L				\$150	\$3,000		K. \$3,150
S/C					\$28,930		32 28,930
LABOR		\$5,410					\$14,470
	Equip	8,245	24.76				
COSTAUNIT	Mati	·		0:30	09:0	·	
SOS	S/C				0.83		
	Labor	1					
-	Rate	, ,27.03 ,22.65					\$24/12
MAN-HOURS	Total	200					009
M	- Calif	01	170				PARKAGE
LINE		DAY DAY MTH MTH	HRS HRS	띰	S. S.		101
OTY		20 20 0.92 0.92	85%	200	5000 35000		D WHAT
		1 regd			7.5 ac		
Interim Restoration		1 operators 2 laborer Dozer, D6 LGP Tractor 4WD 75hp	Dozer, D6 LGP at Tractor 4WD 75hp at	Silt fence	Erosion mat -jute Permanent seeding		ocanalisa ny ara-daharana ny ara-daharana na ara-daharana ny ara-daharana ny ara-daharana ny ara-daharana ny a
ITEM	Š	۵۵					

1.1.C.D WBS NO.:

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY06
ESTIMATE NO.: C2-2001-05-007-26
CLIENT: DOE

TOTAL		() ()	oca'l e	\$2,980		·		68.7 4. 54,630
EQUIP								
MAT'L								新 建] (2007) 建) 建胶理 (2012) 建设置 (2012) (2013) (2013) (2013) (2013) (2013) (2013) (2013) (2013) (2013) (2013) (2013)
S/C								10 to 10 to
LABOR		6	000,14	\$2,980				WWW.\$4,630
	Equip							
COST/UNIT	Maťi							
COST	S/C							
	Labor							
6	Rate		23.64	24.83				
MAN-HOURS	Total	. 1	2	120				M 190
Ž	Unit		က	09				
TIND		i	S	Æ				101
QTY		,	70	7				
Demobilization			Demobilize contractor equipment	Demob screeners				4. Service Service Demobilization as services of second layer and a services of second layer and second sec
ITEM	NO.		Den Den	D Dem			-	
E	ž	<u> </u>		<u></u>	•			

CONTRACTOR - Stated in FY01 DOLLARS

DETAIL ESTIMATE WORKSHEETS

CLIENT: WBS NO.:

1.1.C.D

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY06
ESTIMATE NO.: C2-2001-05-007-26

FLUOR FERNALD

TOTAL	\$5,740 \$4,000 \$12,440 \$6,26,440 \$28,600	\$83,480	
EQUIP			
MAT'L			
S/C			THE REPORT OF THE PERSON NAMED IN
LABOR	\$5,740 \$4,000 \$12,440 \$6,260 \$26,440 \$28,600	\$83,480	
Fourt	die bil		
COST/UNIT			
CC S/C			
Rate	2256024-88	31.36	
MAN-HOURS	106 106 377 189 943	2,662	
≥	E		
LIND	4444		
QTY	Shared <u>percent</u> 10% 10% 10% 25% head head		
	Sha 9.6 mtt 9.6 mtt 9.6 mtt 9.6 mtt 9.6 mtt in overhead in overhead in overhead	TOTAL	
	Project Staffing Project Manager Project Manager General Superintendent Superintendent Project Engineer Guality Engineer Safety Engineer Soff mth Soff Mth S	-	
ITEM			

HEALTH PHYSICS

DOE

1.1.C.D

CLIENT:

WBS NO .:

OSDF BASELINE BORROW AREA COLOUR FERNALD ESTIMATE NO. C2-2001-05-007-26

DATE: 17-May-01

ESTIMATOR: RIS

LOCATION: FERNALD TASK NO.: CCPL2

PPE"s - PERSONAL PROTECTIVE EQUIPMENT

TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE								
PPE LEVEL C / C+ / B: F/HF MASK w/RESP.&CART. TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE EA \$4.46 3 0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$			UNIT		* NO. C	F CHANGE OUT	S PER WORKER	PER DAY
TYVEK COVER-ALL withood & BOOTIES - DISPOSABLE EA	DESCRIPTION	UNIT	COST	Man Da	ys (TOTAL HOUR:	S worked in PPE's Di	iv. by WORK HOURS	/ DAY)
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE EA \$4.46 3 0 \$0 \$0 C / C+ GBOVE LINER - DISPOSABLE PR \$0.24 3 0 \$0 \$0 C / C+ GBOVE LASTEY - DISPOSABLE PR \$0.26 3 0 \$0 C / C+ GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 C / C+ GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 C / C+ GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 C / C+ GBOVE LASTEY - DISPOSABLE PR \$6.98 3 0 \$0 C / C+ GBOVE LASTEY - DISPOSABLE PR \$6.98 3 0 \$0 C / C+ GBOVE LASTEY - DISPOSABLE PR \$0.00 \$0 C / C+ GBOVE LASTEY - DISPOSABLE PR \$0.00 \$0 C / C+ GBOVE LASTEY - DISPOSABLE PR \$0.24 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$0.24 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$0.26 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 \$0 GBOVE LASTEY - DISPOSABLE PR \$1.02 3 0 GBOVE LASTEY - DISPOSABLE GOVERN - DISPOSABLE PR \$1.02 3 0 GBOVE LASTEY - DISPOSABLE GOVERN - DISPOSABLE	PPE LEVEL C / C+ / B: F/HF MASK w/RESP.&CA	RT.		*	MAN DAYS	MAT'L.\$'s	PPE LEVEL	
SLOVE LINER - DISPOSABLE PR \$0.24 3 0 \$0 C / C +	TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	. EA	\$4.46	3	0	. \$0	C / C+	
Stone Lastex - Disposable PR \$0.26 3 0 \$0 C / C +	TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	0	\$0	C/C+	(DOUBLE PPE)
SUB-TOTAL S1.02 3 0 \$0 C/.C+	GLOVE LINER - DISPOSABLE	PR	\$0.24	3	0	\$0	C/C+	
APR CARTRIDGES - DISPOSABLE PR \$6.98 3 0 \$0 C / C+ SUB-TOTAL \$17.42 3 \$3 \$59 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50	GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	0	\$0	C/C+	
SUB-TOTAL \$17.42 3 \$50 \$7MD = \$0.00 \$0.00 \$	GLOVE, WORK - DISPOSABLE	PR	\$1.02		0	\$0	C/C+	
S/MD = \$0.00	APR CARTRIDGES - DISPOSABLE	PR	\$6.98	3	0	\$0	C / C+	
PPE LEVEL mC: FULL DRESS w/ FACE SHIELD T.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIE PR \$4.46 3 0 \$0 mC GLOVE LINER - DISPOSABLE PR \$0.24 3 0 \$0 mC GLOVE, LASTEX - DISPOSABLE PR \$0.26 3 0 \$0 mC GLOVE, WORK - DISPOSABLE PR \$1.02 3 0 \$0 mC SUB-TOTAL \$5.98 3 \$0 \$0 mC SUB-TOTAL \$5.98 3 \$0 \$0 mC SUB-TOTAL \$5.98 3 \$0 \$0 mC SUB-TOTAL \$5.98 3 \$0 \$0 mC SUB-TOTAL \$5.98 3 \$0 \$0 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 \$0 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC SUB-TOTAL \$5.98 3 mC	SUB-TOTAL		\$17.42	3		\$0		
T.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIE PR \$4.46 3 0 \$0 mC GLOVE LINER - DISPOSABLE PR \$0.24 3 0 \$0 mC GLOVE, LASTEX - DISPOSABLE PR \$0.26 3 0 \$0 mC GLOVE, WORK - DISPOSABLE PR \$1.02 3 0 \$0 mC GLOVE, WORK - DISPOSABLE PR \$1.02 3 0 \$0 mC GLOVE, WORK - DISPOSABLE PR \$1.02 3 0 \$0 mC GLOVE, WORK - DISPOSABLE PR \$1.02 3 0 \$0 mC SUB-TOTAL \$5.98 3 \$0 mC \$/MD = \$0.00 QTY. PER WORKERS MAT'L\$'S PPE LEVEL RUBBER BOOT COVERS-(1)PR PER WORKER PR \$12.70 2 8 \$203 D/C/B APR w/HALF FACE MASK - (1) PER WORKER EA \$22.30 6 0 \$0 CC APR w/FULL FACE MASK - (1) PER WORKER EA \$174.00 6 0 \$0 CC SCBA EA \$1,894.00 2 0 \$0 B COOL VESTS EA \$137.50 6 0 \$0 \$0 CC/B	The state of the s				\$/MD =	\$0.00		
T.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIE PR \$4.46 3 0 \$0 \$0 mC GLOVE LINER - DISPOSABLE PR \$0.24 3 0 \$0 mC GLOVE, LASTEX - DISPOSABLE PR \$0.26 3 0 \$0 mC GLOVE, WORK - DISPOSABLE PR \$1.02 3 0 \$0 mC GLOVE, WORK - DISPOSABLE PR \$1.02 3 0 \$0 mC GLOVE, WORK - DISPOSABLE PR \$1.02 3 0 \$0 mC GLOVE, WORK - DISPOSABLE PR \$1.02 3 0 \$0 mC GLOVE, WORK - DISPOSABLE PR \$1.02 3 0 \$0 mC SUB-TOTAL \$5.98 3 \$0 mC GTY. PER NO. OF WKR. WORKERS MATL.\$5 PPE LEVEL RUBBER BOOT COVERS-(1)PR PER WORKER PR \$12.70 2 8 \$203 D/C/B APR w/HALF FACE MASK - (1) PER WORKER EA \$22.30 6 0 \$0 CC APR w/FULL FACE MASK - (1) PER WORKER EA \$174.00 6 0 \$0 CC SCBA EA \$1,894.00 2 0 \$0 B COOL VESTS EA \$137.50 6 0 \$0 \$0 CC/B	·						ji	•
SILOVE LINER - DISPOSABLE PR \$0.24 3 0 \$0 mC	PPE LEVEL mC: FULL DRESS w/ FACE SHIELD				.MAN DAYS	MAT'L.\$'s	PPE LEVEL	
SUB-TOTAL St.	LT.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIE	PR	\$4.46	3	0	\$0	·mC	
SUB-TOTAL \$5.98 3 \$5.98 3 \$5.98 \$1.02 \$1.0	GLOVE LINER - DISPOSABLE	PR	\$0.24	3	0	\$0	#mC	
SUB-TOTAL \$5.98 3 \$0 \$0 \$0.00 \$ \$/MD = \$/MD = \$0.00 \$ \$/MD = \$/MD	GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	0	\$0	, mC	
\$/MD = \$0.00 CTY. PER NO. OF WORKERS WKR. WKR. WORKERS WKR. WORKERS WKR. WORKERS WKR. WORKERS WKR. WORKERS WKR. WORKERS WKR. WORKERS WKR. WORKERS WKR. WORKERS WKR. WORKERS WKR. WORKERS WKR. WKR. WORKERS WKR. WORKERS WKR. WORKERS WKR. WORKERS WKR. WORKERS WKR. WORKERS WKR. WORKERS WKR. WKR	GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	. 0	\$0	:mC #	
QTY. PER NO. OF WORKER NO. OF WORKER WKR. WORKER WKR. WORKER WKR. WORKER WKR. WORKER WKR. WORKER WKR. WORKER WKR. WORKER WKR. WORKER WKR. WORKER WKR. WORKER WKR. WORKER WKR. WORKER WKR. WORKER WKR. WORKER WKR. WORKER WKR.	SUB-TOTAL		\$5.98	3		\$0		
PER NO. OF WKR. WORKERS WATL.\$'s PPE LEVEL					\$/MD =	\$0.00		
PER NO. OF WKR. WORKERS WATL.\$'s PPE LEVEL					<u></u>			
SUBCONTRACTOR REQUIRED PURCHASES WKR. WORKERS MATL\$'s PPE LEVEL RUBBER BOOT COVERS-(1)PR.PER WORKER PR \$12.70 2 8 \$203 D/C/B APR w/HALF FACE MASK - (1) PER WORKER EA \$22.30 6 0 \$0 C APR w/FULL FACE MASK - (1) PER WORKER EA \$174.00 6 0 \$0 C SCBA EA \$1,894.00 2 0 \$0 B COOL VESTS EA \$137.50 6 0 \$0 C/B								
RUBBER BOOT COVERS-(1)PR.PER WORKER PR \$12.70 2 8 \$203 D/C/B APR WHALF FACE MASK - (1) PER WORKER EA \$22.30 6 0 \$0 C APR WFULL FACE MASK - (1) PER WORKER EA \$174.00 6 0 \$0 C SCBA EA \$1,894.00 2 0 \$0 B COOL VESTS EA \$137.50 6 0 \$0 CC/B								
APR w/HALF FACE MASK - (1) PER WORKER EA \$22.30 6 0 \$0 CC APR w/FULL FACE MASK - (1) PER WORKER EA \$174.00 6 0 \$0 CC APR w/FULL FACE MASK - (1) PER WORKER EA \$1,894.00 2 0 \$0 B APR w/FULL FACE MASK - (1) PER WORKER EA \$1,894.00 2 0 B APR w/FULL FACE MASK - (1) PER WORKER EA \$1,894.00 2 0 B APR w/FULL FACE MASK - (1) PER WORKER EA \$1,894.00 2 0 B APR w/FULL FACE MASK - (1) PER WORKER EA \$1,894.00 B APR w/FULL FACE MASK - (1) PER WARKER EA \$1,894.00 B APR w/FULL FACE MASK - (1) PER W/FULL FACE MASK - (1) PER W/FULL FACE MASK - (1) PER W/FULL FACE MASK - (1) PER W/FULL FACE MASK - (1) PER W/FULL FACE MASK - (1) PER W/FULL FACE MASK - (1) PER W/FULL FACE MASK - (1) PER W/FULL FACE MASK - (1) PER W/FULL FACE MASK - (1) PER W/FULL FACE MASK - (1) PER W/FULL FACE MASK - (1) PER W/FULL FACE MASK - (1) PER W/FULL FACE MASK - (1) PER W/FULL FAC	SUBCONTRACTOR REQUIRED PURCHASES				WORKERS			•
APR W/FULL FACE MASK - (1) PER WORKER	RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	\$12.70	2	8	. \$203	D/C/B	
SCBA EA \$1,894.00 2 0 \$0 B COOL VESTS EA \$137.50 6 0 \$0 \$C/B	APR w/HALF FACE MASK - (1) PER WORKER	EA	\$22.30	6	0	\$0	C	
COOL VESTS EA \$137.50 6 0 \$0 C/B	APR WFULL FACE MASK - (1) PER WORKER	EA	\$174.00	6	. 0	\$0	Carl	•
10.2 PATRIC 10.1 PATRIC 10.2	SCBA	EA	\$1,894.00	2	0	\$0	В	
THERMO STRIPS EA \$50.00 6 0 \$0 C/B	COOL VESTS	EA	\$137.50	6	0	\$0	.≟C/B	
	THERMO STRIPS	EA	\$50.00	· 6	0	\$0	C/B	

TOTAL PPE's =

MAT'L.\$'s \$200

(FORWARD TO PAGE 2 OF 2)

OTHER PPE'S SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. COSTS OF FD FERNALD SUPPLIED PPE's, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCURRED BY FD FERNALD AND COSTS ARE NOT INCLUDED AS PART OF PROJECT COSTS AT THIS TIME.

SUB-TOTAL

APPENDIX "C"

PROJECT:

ESTIMATE NO. C2-2001-05-007-26

CLIENT: WBS NO .: DOE 1.1.C.D.

OSDF BASELINE BORROW AREA CCPL2 FY06

DATE: 17-May-01

ESTIMATOR: RIS

LOCATION: FERNALD

TASK NO.: CCPL2

-- MEDICAL MONITORING --

MEDICAL - PHYSICAL and IN-VIVO MONITORING - LOST WORKER TIME for RAD WORKERS O
DESCRIPTION QTY HRS WKR TOTAL HOURS LABOR TOTAL LABOR \$ PHYSICAL (3hrs), IN-VIVO (1hr) 1 4 0 0 \$26.05 \$0
PHYSICAL (3hrs), IN-VIVO (1hr) HOURS RATE LABOR \$ BASELINE PHYSICALS 1 4 0 0 \$26.05 \$0
BASELINE PHYSICALS 1 4 0 0 \$26.05 \$0
ANNUAL PHYSICALS 0 4 0 0 \$26.05 \$0
EXIT (TERMINATION) PHYSICALS (IN-VIVO) 1 1 1 0 0 \$26.05 \$0
SUB-TOTAL \$0

DESCRIPTION	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR \$	
BI-MONTHLY BIOASSAY	6	1	0	0	\$26.05	\$0	
SUB-TOTAL			<u> </u>			02:::::::::::::::::::::::::::::::::::::	

RANDOM DRUG TESTING

 	ום וזוסטרוגע	100 15	.ormu			
	TESTS	HRS	TOTAL HOURS	AVG. RATE	LABOR \$'s	
	1	2	2	\$26.05	\$100	
NO. OF	TESTING	AVQ. NO.	- CHANCE/	NO. OF WKRS.	CHANCES	CONSTR
WKRS.	DAYS	OF TESTS	DAY	FOR THIS	/DAY FOR TEST	WORKING
TESTED	PER YR.	PER DAY	FOR TEST	ESTIMATE	FOR PROJECT	DAYS
2340	226	10	0.0042735	2	0.0085	135

	LABOR \$'s THRU SAFETY LAB	OR \$'s
WORK DELAYS CAUSED BY MONITORING 0.0%	\$428,990	\$0
	LAE	OR \$'s
WORK DELAYS CAUSED BY RAD CHECKING 0.0%	\$428,990	\$0
		-
	•	OTAL GRAND AT'L TOTAL
TOTAL HEALTH PHYSICS	\$100	\$766881 BBBBBB \$7668888

(FORWARD TO ESTIMATE SUMMARY SHEET)

PROJECT:

OSDF BASELINE BORROW AREA CCPL2 FY07

ESTIMATE #: C2-2001-05-007-27 CLIENT:

DOE

FLUOR FERNALD

DATE:

17-May-01

ESTIMATOR: RIS LOCATION: FERNALD

WBS #: 1.1.C.D							CCPL2
ITEM DESCRIPTION	M/H	RATE	LABOR \$	S/C\$	MAT'L \$	EQUIP.\$	TOTAL \$
nsurance & Bond		}		\$49,840			\$49,840
Submittals ·	694		\$25,250		\$200		\$25,450
Overhead and Profit				\$296,670			\$296,670
Mobilization	70		\$1,650	\$8,350	\$4,700		\$14,70
Site Preparation	560		\$13,310	. [\$8,780	\$9,490	\$31,580
Screening	11,690		\$286,200	Ī		\$686,310	\$972,510
nterim Restoration	600		\$14,470	\$28,930	\$3,150	\$15,100	\$61,650
Demobilization	190		\$4,630				\$4,630
		•		1	·		
	1			1			
				1			
Survey	1			\$17,000			\$17,000
suivey				\$17,000			\$17,000
Project Staffing	2,625		\$82,330		•		\$82,33
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				1			
DIRECT, FIELD COSTS TOTAL	16,429	\$26.04	\$427,840	\$400,790	\$16,830	\$710,900	\$1,556,36
SUPERVISION - CONTRACTOR	10,423	Ψ20.0 -1	9421,040	\$400,750	\$ 10,030	\$710,500	Ψ1,000,00
SMALL TOOLS & CONSUMABLES	-		-		\$6,000		\$6,000
MISC. EQUIP. RENTAL	-	-	· -	1	, , ,	\$23,600	\$23,600
TEMPORARY FACILITIES incl w/Mobilization		·		1		,	
TEMPORARY UTILITY HOOK-UP incl w/Mobilzation							
JOB CLEAN-UP ind w/Job Close-out							
PER DIEM / SUBSISTANCE	-	-	- 1				
HEALTH PHYSICS S/C incl w/Submittals			I				٠.
CERCLA - TRAINING incl w/Submittals	•						
GET/SITE ACCESS & JOB SPECIFIC TRAINING W/su	1		1				
PAYROLL BURDENS & BENEFITS	-	-	\$243,900				\$243,90
OVERHEAD & PROFIT	-	-	-				
BOND	-	-	-				
SALES TAX	-	-	-		\$1,400	\$44,100	\$45,50
INDIRECT FIELD COSTS TOTAL			\$243,900		\$7,400	\$67,700	\$319,00
DIRECT & INDIRECT FIELD COSTS TOTAL	16,429	\$40.89	\$671,740	\$400,790	\$24,230	\$778,600	\$1,875,36
TARGET ESTIMATE		et er eng	(FY:01:DC)[alsApg)	i egyettijota	· 株式: 1、20 × 14.50 和2.50	\$1,875,40
			APPENDATE OF	LEAUS)	A Country	Terraid	₹1,070,40

ESTIMATE PERFORMED BY ESTIMATING SERVICES

ES'	TIMATE SUMM	IARY SHE	ET			
PROJECT: OSDF BASELINE BORROW AREA CCPL2 F					DATE:	17-May-01
ESTIMATE NO. C2-2001-05-007-27 CLIENT: DOE WBS NO.: 1.1.C.D		ESTIMATOR: LOCATION: TASK NO.:	RIS FERNALD CCPL2			
FIXED PRICE (LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE\$	TOTAL \$
DFC DOLLARS	\$427,840	\$400,790	\$16,830	\$710,900		\$1,556,360
IFC COST FACTOR	1.5701	4 0000	1.3565	1.0332	1 1	
BOND + OVERHEAD & PROFIT COST FACTOR	1.0000	1.0000	1.0000	1.0000 1.0600		
SALES TAX	- -	<u>.</u>	1.0000	1.0000	1.0000	
DIRECT FIELD COST FACTOR =	1.5701	1.0000	1.4379	1.0952	1.0600	
BASE ESTIMATE \$'S	\$671,740	\$400,790	\$24,200	\$778,570		\$1,875,300
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
TARGET ESTIMATE FACTOR	1.5701	1.0000	1.4379	1.0952	1.0600	0000000000000
FPS TARGET ESTIMATE (FY01 \$)	\$671,740	\$400,790	\$24,200	\$778,57 0		\$1,875,300

NOTE:

IF THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

PROJECT:	OSDF BASELINE BORROW AREA CCPL2 F	STIMA	TE SUMM	ARY SHE	ET		DATE:	17-May-01
	. C2-2001-05-007-27	DIRE	ECT FIELD	COST			ESTIMATOR:	RIS
CLIENT:	DOE		FACTO				LOCATION:	FERNALD
WBS NO.: PAY ITEM NO.	1.1.C.D DESCRIPTION		LABOR \$	S/C \$	MAT'L.\$	EQUIP. \$	TASK NO.: PPE \$	CCPL2 TOTAL \$
PATTIEWING.	DESCRIPTION		(ASSIGN OR F				- ΓΓ Ε Ψ	IOIAL
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				1				
	Insurance & Bond			49,840				49,840
	insurance & Bond			\$49,840				\$49,840
	Submittals		25,250		200	4		25,450
			\$39,640		. \$290			\$39,930
	Overhead and Profit			296,670				296,670
				\$296,670				\$296,670
ł								
1								
	Mobilization		1,650	8,350	4,700			14,700
			\$2,590	\$8,350	\$6,760	•		\$17,700
	Site Preparation		13,310		8,780	9,490		31,580
	Site Preparation		\$20,900		\$12,620	\$10,390		\$43,910
·	Screening		286,200			686,310		972,510
			\$449,350			\$751,640		\$1,200,990
	Interim Restoration		14,470	28,930	3,150	15,100	ľ	61,650
l	·		\$22,720	\$28,930	\$4,530	\$16,540		\$72,720
į	Dame at Washington		4 000					4 630
	Demobilization		4,630 \$7,270					4,630 \$7,270
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	Survey			17,000				17,000
				\$17,000				\$17,000
1	Project Staffing		82,330					82,330
1			\$129,260					\$129,260
1								
								•
TOTAL BIDE								
TOTAL DIRECT			\$671,730	\$400,790	\$24,200	\$778,570		\$1,875,290

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CONTRACTOR - Stated in FY01 DOLLARS

s:\estimate\osdf uday k format\borrow area\baseline ccpi2 ba 27.xls

DETAIL ESTIMATE WORKSHEETS

DATE: 17-May-01
ESTIMATOR: RIS
LOCATION: FERNALD
TASK NO.: CCPL2

FLUOR FERNALD PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY07 ESTIMATE NO.: C2-2001-05-007-27 CLIENT: DOE WBS NO.: 1.1.C.D

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TEM	SUMMARY	αTY	ENO.	4	Ž∤		\dashv		COST / UNIT			LABOR	SIC	MAI'L	EQUIP	IOIAL
ŏ.				Cnit	Total	Rate	Labor	or	s/c	Mat'i	Equip					
													0.00			
	Insurance & Bond		-										\$49,840			\$48,840
	Submittals					694						\$25,250		\$200		\$25,450
	Overhead and Profit												\$296,670			\$296,670
	Mobilization					02		•				\$1,650	\$8,350	\$4,700		\$14,700
	Site Preparation					260	························			,		\$13,310		\$8,780	\$9,490	\$31,580
	Survey												\$17,000			\$17,000
	Screening				11,690	06						\$286,200			\$686,310	\$972,510
	Interim Restoration				 	009						\$14,470	\$28,930	\$3,150	\$15,100	\$61,650
	Demobilization					190						\$4,630			-	\$4,630
						·										
	·									:						
														a attended a temperature of the second and the seco	•	
	Project Staffing				2,625	ro N						82,330				\$82,330
No.	1 1 1 1 1 1 1 1 1 1	(((((((((((((((((((O.18	2	W. Bernella	903 WEST	0.4					884 S427 840	\$400.790	#####\$16,830	S 27.10.900	34854856

CLIENT: WBS NO.:

1.1.C.D

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY07
ESTIMATE NO.: C2-2001-05-007-27
CLIENT: DOE

TOTAL		·	\$49,840	\$9,110 \$7,590 \$8,450		\$300	\$25,450	\$296,670				
EQUIP					· · · · · · · · · · · · · · · · · · ·				***************************************			
MAT'L						\$200	\$200					
S/C			\$49,840	<i></i>				\$296,670		•		
LABOR				\$9,110 \$7,590 \$8,450	•	\$100	\$25,250					
	Equip								•			
COSTAUNIT	Mat'i	. 0	0;					na gravitania antika Makabaran da garaka	· · · · · · · · · · · · · · · · · · ·			
8	S/C	COST THRU OH & P	1780020						· ·			
	Labor	·										
	Rate			50.62 50.62 26.04		23.64					·	
MAN-HOURS	Total .	·		180 150 360		4	694					T
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LINS				ផងផ								
ΩТУ				30 e								
		1.3%		aing, cnstrct work						•		
		Insurance & Bond Performance bond Insurance	For both FY Sub-total	<u>Submittals</u> Plans Technical submittals Site access & GET traing, cnstrct work		Health Physics	Sub-total	Overhead and Profit				
ITEM	Š			000		<u> </u>		UI .				+

CLIENT: WBS NO.:

1.1.C.D

Mobilization

2 redd

Heat stress / support trailers

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY07
ESTIMATE NO.: C2-2001-05-007-27
FLUOR FERNALD

17-May-01 RIS FERNALD CCPL2 DATE:
ESTIMATOR: ILOCATION: ITASK NO.:

					·	
	TOTAL		\$6,630		\$1,610 \$510 \$4,300	\$1,650
	EQUIP		·		÷	
	MAT'L				\$400	
	S/C		06,63	,	\$1,610 \$110	
	LABOR					\$1,650
		Equip				• .
-	/UNIT	Mati			40	
	COST/UNIT	s/c	350		85	
·		Labor		÷		
	S	Rate				23.64
	MAN-HOURS	Total				02
		Cult				m
	UNIT		MO		MTH HTH	a
	QTY		9.5		დ <u>ი</u> ი ი	20

2 ea Potable water, Allow 5jug/mth, \$8/jug

Mobilize contractor equipment

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1.1.C.D WBS NO.:

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY07
ESTIMATE NO.: C2-2001-05-007-27
CLIENT: DOE

TOTAL		\$300 \$1,360 \$810 \$390 \$220	\$3,500	\$2,780 \$4,530	\$910 \$540 \$1,240 \$470 \$110 \$320 \$150	\$2,100	\$230 \$230 \$810 \$1,850 \$160	
EQUIP		\$380		•	\$1,240 \$470 \$110 \$150	·	\$1,850 \$160 \$140	
MAT'L		\$300	\$3,500	\$2,780		\$2,100		
S/C								
LABOR		\$1,360	\$910	\$4,530	\$540		\$230 \$230 \$810	
	Equip	2,800		•	11,490 4,335 985 32.15	08.1	11,490 160 16.05 32,15	
UNIT	Mat'i	0:30	3,500	\$1.05		21 6		
COST/UNIT	S/C							
	Labor							
	Rate	22.65	22.65	22.65	22.65		22.86 22.65 27.03	
MAN-HOURS	Total	30	40	200	700		30 10	
ž	Cult	10 10 26	10	10	00 00		10 10 8.5	
TIND		LF DAY DAY MTH HRS	DAY	LF DAY		A P O	DAY DAY MTH DAY HRS	
ΩTY		1,000 LF 3 D/ 0.14 MI	2	2,650	0.09 0.09	100 100 16		
	1 0 1 1 X	85%		2 wks	2 day: 2 day: 50% 50%	85% 12cy	3 day : 85%	
M Site Preparation		Silt fence 2 laborer 1 operator Backhoe Cat 416 Backhoe Cat 416 at	Set up field trailer, 8'x12' 2 laborer	Construction fence 2 laborer	<u> </u>	Compactor Walk behind at 30" CMP Bedding Excavate dirch	1 teamster 1 teamster 1 laborer 1 operator Excavator Cat 330 Haul fruck Haul fruck	
ITEM	N O	۵۵	Ω	`۵	۵٫۵		۵۵۵	

CONTRACTOR - Stated in FY01 DOLLARS

DETAIL ESTIMATE WORKSHEETS

ITEM NO.

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PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY07
ESTIMATE NO.: C2-2001-05-007-27
CLIENT: DOE
WBS NO.: 1.1.C.D

TOTAL		\$1,360 \$1,620 \$1,100 \$1,100	MWW.\$346580
EQUIP		\$1,850 \$1,100 \$820 \$630	\$.4.5. \$9.490
MAT'L			WW. 45.58 780
S/C			
LABOR		\$1,360	WWW.513310
	Equip	11,490 6,820 32.15 24.90	
UNIT	Mati		100
COST/UNIT	S/C		S. Sharing B.
	Labor		THE PARTY OF THE P
S	Rate	22.65	NAME OF TAXABLE PARTY.
MAN-HOURS	Total		(ERESTRO
	Calt	10 26 26	W. 1887
IN S		DAY MTH HRS HRS	A COLOR
OTY		0.14 0.14 85% 85%	Town March
		3 day : 3 day :	And delications
Site Prep cont'd		Set-up screeners & conveyors requires 2 screeners 2 laborer 2 operator Excavator Cat 330 Loader Cat 966 at Loader Cat 966 at	**************************************

DOE 1.1.C.D CLIENT: WBS NO.:

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY07
ESTIMATE NO.: C2-2001-05-007-27

FLUOR FERNALD

			7=
TOTAL	\$17,000		S. S. 17, 000
EQUIP			
MAT'L			
:S/C	\$17,000		000/4/5/2/2/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3/3
LABOR			
1	di 5		
COST/UNIT	Nati		
soo	140		
-	Labo		
	Zard		##DIV/018
MAN-HOURS	RIO		
			9
QTY UNIT			
		Borrow area alloocation = \$17,000	
ITEM	۵ م		

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FYOT ESTIMATE NO.: C2-2001-05-007-27 CLIENT: DOE VBS NO.: 1.1.C.D

TOTAL			\$80,460	\$107,030	\$39,860	000,000	90,030	483,340 434 400	\$27,700 \$128,440	0110714	\$1.780	8500	0000	0/0'674	\$5,800	\$48,100	\$18,630	\$81,140	\$50,860	\$600	\$1,200			\$32,000	\$18,920	\$7,930 \$7,930	\$21,240	\$18,560	\$51,080	\$11,800	0	98,000	924,200	## \$9701540
EQUIP		<u>.</u>		-	£53 300	000,000	90,030	993,340	\$27,700	0110710	\$1 780	007.1	9 00	0/0'876	\$2,800	\$48,100	\$18,630	\$81,140	\$50,860	\$600	\$1,200					070	\$21,240	\$18,560	\$51,080	\$11,800	C C	000,84	924,200	WALKER GRANNING
MAT'L																																		NO CHARLES AND ASSESSMENT OF THE PERSON OF T
S/C												-																						
LABOR			\$80,460	\$107,030	\$39,860			·																\$32,000	\$18,920	\$7,930								A COCCAROR SERVICE
	Equip				10 145	, ,	621,2	11,490	0,820	COS, 7	738	146	54. 6	39.66	7.75	32.15	24.90	27.12	34.00	0.80	1.60						13,145	11.490	7,905	39.66		32.15	71.77	1 0000000000000000000000000000000000000
COST/UNIT	Mat'i																																	Research Services
cos	S/C																					٠										٠		AT SECURE
	Labor	-																						-										NAME OF TAXABLE
S	Rate		22.86	27.03	22.65																,			22.86	27.03	22.65	-							07/2/00/2
MAN-HOURS	Total		3,520	3,960	1,760		-											-						1,400	200	320							1	- OUGGES
MA	Unit		9	9	0									748	748	748	748	748	748	748	748			9	9	6				298	,	298	298	K CONTRACTOR
LIND			DAY	DA≺	PΑ̈́	Σ.	Į.	MTH	H E	Z 2		Σ.	Ξ	HRS	HRS	HRS	HRS	HRS	HRS	HRS	HRS			DAY	DA√	DĄ	Ε	MTH	Α	HRS		HRS	HKS	740/1
QTY			88	88	88 8	4.06	4.06	4.06	4.06	4.06	00.4	4.00	4.06	82%	85%	85%	85%	85%	85%	85%	85%	*********	psoil layers	35	35	32	1.62	1 62	162	85%	,	82%	85%	- Proposition
			-		•	1 redd	1 regd	2 reqd	1 redd			1 redd	1 redd										Vegetative, & to	·			1 reqd	- Load	4 rend	5				I MANAGEMENT OF THE I
Screening		Screening	4 teamster	4.5 operators	2 laborer	Dozer, D8	Tractor 4WD 75hp	Excavator Cat 330	Loader Cat 966	Truck, Volvo A30	Screener, Extec w/z conv	2" pump	Generator, 5000 kw	Dozer, D8 at	Tractor 4WD 75hp	Excavator Cat 330 at	Loader Cat 966 at	Truck, Volvo A30, at	Screener w/2 conv at	2" pump at	Generator, 5000 kw at		Excavate & Stockpile Contouring, Vegetative, & topsoil layers	4 teamster	2 operators	1 laborer	Dozer, D8	Excavator Cat 330	Trick Volvo A30	Dozer, D8 at		Excavator Cat 330 at	Truck, Volvo A30, at	のサンドのでは、一般のでは、「一般のでは、」」」。「一般のでは、「一般のでは、「一般のでは、「一般のでは、「一般のでは、「一般のでは、「一般のでは、「一般のでは、「一般のでは、「一般のでは、「一般のでは、「一般のでは、「一般のでは、「一般のでは、「一般のでは、「一般のでは、「一般のでは、「一般のでは、「一般のでは、「」」」。「一般のでは、「一般のでは、「」」」。「一般のでは、「」」」。「「」」」。「「」」」。「「」」」。「「」」」。「「」」」。「「」」」。「「」」」。「「」」」。「「」」」。「「」」」。「「」」」。「「」」」。「「」」」。「「」」」。「「」」。「「」」。「」」。「「」」。「」」。「」」。「「」」。「」」。「」」。「「」」。「」」。「」」。「」。「
ITEM	Š		۵	۵	۵																٠			۵	۵	Ω								415.00

CLIENT: WBS NO.:

DOE 1.1.C.D

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY07
ESTIMATE NO.: C2-2001-05-007-27

FLUOR FERNALD

			•									
TOTAL			\$5,410 \$9,060 \$7,610 \$1,960	\$4,210 \$1,320	\$150	\$3,000 \$28,930						\$6,1,650
EQUIP			\$7,610 \$1,960	\$4,210								\$10018100
MAIL					\$150	\$3,000						\$33/150 ×
S/C				• .		\$28,930						38 S S S S S S S S S S S S S S S S S S S
LABOR			\$5,410				· · · · · · · · · · · · · · · · · · ·					S 147470
	Equip	•	8,245 2,125	24.76 7.75								
JUNIT	Mat'i				0.30	0.60]	
COST/UNIT	S/C					0.83						
	Labor											
RS	Rate		27.03 22.65									2/4/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2
MAN-HOURS	Total		400						-			00988
	Unit		5 6	170								
LIND			DAY DAY MTH MTH	HRS HRS	4	SY SY						*ITOTI
QTY			20 20 0.92 0.92	85% 85%	200	5000 35000						
tion			1 reqd 1 reqd			7.5 ac						Chicago and Alexander
Interim Restoration			1 operators 2 laborer Dozer, D6 LGP Tractor 4WD 75hp	Dozer, D6 LGP at Tractor 4WD 75hp at	Silt fence	Erosion mat -jute Permanent seeding						STOUR BESTUDIES OF STOUR SECTION SECTI
TEM	Š	l	0							•		1

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY07
ESTIMATE NO.: C2-2001-05-007-27
CLIENT: DOE
WBS NO.: 1.1.C.D

TOTAL		8. 07.0	\$2,980		
EQUIP		,			
MAT'L			-		× (2000)
S/C					
LABOR			\$2,980		COSTA DESCRIPTION STATEMENT (SECOND CHESTER) HERESTER (HERESTER) SECOND COSTA DE SECOND DE SECON
	Equip				
COST/UNIT	Mat'i				
SOO	S/C				
	Labor				
IRS	Rate	73.67			
MAN-HOURS	Total	20	. •		
	Cnit				
UNIT		00 E			
QTY		•			
Demobilization		to continue and ordered collision	Demob screeners		
Ļ					
ITEM	ġ.	C	۵ ۵		

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY07
ESTIMATE NO.: C2-2001-05-007-27
CLIENT: DOE
WBS NO.: 1.1.C.D

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FERNALD
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17-May-01 RIS FERNALD CCPL2

DATE:
ESTIMATOR: I
LOCATION: I
TASK NO.:

Γ		270 270 270 200	330	
TOTAL		\$5,670 \$3,940 \$12,270 \$6,170 \$26,080	\$82,330	
EQUIP				
MAT'L				A STATE OF STATE OF STATE OF
S/C				
LABOR		\$5,670 \$3,940 \$12,270 \$6,170 \$26,080 \$28,200	\$82,330	
	Equip			
늘	Mat'i			
TNININI	S			
l	Labor			
Sa	Rate	54.42 37.85 32.99 33.19 28.05 30.34 19.31 25.58	31.36	
MAN-HOLIES	Total	104 104 372 186 930 930	2,625	
2	Unit	0-00		
HINI		*****	3	
VIO	,	Shared <u>percent</u> 10% 10% 10% 25% 25% ead		
		S 9.5 mth 9.5 mth 9.5 mth 9.5 mth 9.5 mth 9.5 mth 9.5 mth 9.5 mth 9.5 mth	TOTAL	
		Project Staffing Project Manager General Superintendent Superintendent Superintendent Superintendent Superintendent Superintendent Submit Project Engineer Submit Safety Engineer Submit Office Administration In overhead Contract Administration/ Schedu in overhead		
T. J.	Ő S	00000000		

APPENDIX "C"

HEALTH PHYSICS

PROJECT:

CLIENT: WBS NO .:

ESTIMATE NO. C2-2001-05-007-27 1.1.C.D

OSDF BASELINE BORROW AREA CCPLEFOR FERNALD DATE: 17-N ESTIMATOR: RIS LOCATION: FER

17-May-01

LOCATION: FERNALD TASK NO.: CCPL2

PPE"s - PERSONAL PROTECTIVE EQUIPMENT

		UNIT		* NO. C	F CHANGE OUT	S PER WORKER	PER DAY
DESCRIPTION	UNIT	COST	Man Da	ys (TOTAL HOUR:	s worked in PPE's D	iv. by WORK HOURS	DAY)
PPE LEVEL C / C+ / B: F/HF MASK W/RESP.&CA	RT.		*	MAN DAYS	MAT'L.\$'s	PPE LEVEL	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	Ó	\$0	C / C+	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	0	\$0	C/C+	(DOUBLE PPE)
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	0	\$0	C/C+	
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	0	\$0	C/C+	
GLOVE, WORK - DISPOSABLE	PR	. \$1.02	3	. 0	\$0	C/C+	
APR CARTRIDGES - DÍSPOSABLE	PR	\$6.98	3	0	\$0	C/C+-	
SUB-TOTAL		\$17.42	3		\$0		
				\$/MD =	\$0.00		

PPE LEVEL mC: FULL DRESS w/ FACE SHIELD				MAN DAYS	MAT'L.\$'s	PPE LEVEL
LT.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIE	PR	\$4.46	3	0	\$0	mC
GLOVE LINER - DISPOSABLE	PR	\$0,24	3	0	\$0	mC ·
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	0	\$0	mC.
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	0	\$0	·mC ₄
SUB-TOTAL		\$5.98	3		50	

\$/MD = \$0.00

			QTY.			
			PER	NO. OF		
SUBCONTRACTOR REQUIRED PURCHASES			WKR.	WORKERS	MAT'L.\$'s	PPE LEVEL
RUBBER BOOT COVERS-(1)PR PER WORKER	PR	\$12.70	2	8	\$203	D/C/B
APR w/HALF FACE MASK - (1) PER WORKER	EA	\$22.30	6	0	\$0	С
APR w/FULL FACE MASK - (1) PER WORKER	EA	\$174.00	6	0	\$0	C
SCBA ·	EA	\$1,894.00	2	0	\$0	В
COOL VESTS	EA	\$137.50	6	0	\$0	C/B
THERMO STRIPS	EA	\$50.00		0	\$0	C/B
SUB-TOTAL	To the Market Market St. Princeton and S.				\$200	

TOTAL PPE's =

MAT'L.\$'s \$200

(FORWARD TO PAGE 2 OF 2)

OTHER PPE'S SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. COSTS OF FD FERNALD SUPPLIED PPE's, SUCH AS COTTON COVERALLS, EXCHANGE'OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCURRED BY FD FERNALD AND COSTS ARE NOT INCLUDED AS PART OF PROJECT COSTS AT THIS TIME.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY07

ESTIMATE NO. C2-2001-05-007-27

CLIENT: WBS NO.:

DOE 1.1.C.D

C2-2001-05-007-27

DATE: 17-May-01
ESTIMATOR: RIS
LOCATION: FERNALD
TASK NO.: CCPL2

-- MEDICAL MONITORING --

MEDICAL - PHYSICAL and IN-V	IVO MO	NITORING	- LOST	WORKER 1	TIME for RAD	I WORKERS	ONL
					AVG.		Γ
DESCRIPTION	QTY	HRS ·	WKR	TOTAL	LABOR	TOTAL	
PHYSICAL (3hrs), IN-VIVO (1hr)				HOURS	RATE	LABOR \$	
BASELINE PHYSICALS	1	4	0	0	\$26.04	\$0	
ANNUAL PHYSICALS	0	4	0	0	\$26.04	\$0	
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	- 0	0	\$26.04	\$0	
SUB-TOTAL						\$0	
							•

RADIATION IN-VITRO	SURVEILLAN	ICE - LOS	T WOR	KER TIME	or RAD II WO	RKERS ONLY	_
DESCRIPTION	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR \$	
BI-MONTHLY BIOASSAY	6	1	0	0	\$26.04	\$0	

SUB-TOTAL						\$0	

RANDOM DRUG TESTING TESTS HRS TOTAL HOURS AVG. RATE LABOR \$'s 2 \$26.04 NO. OF TESTING CHANCE/ NO. OF WKRS. CHANCES CONSTR AVG. NO WKRS. DAYS FOR THIS DAY FOR TEST WORKING OF TESTS DAY TESTED PER YR. FOR TEST ESTIMATE FOR PROJECT DAYS PER DAY 2340 226 10 0.0042735 0.0085 135

	LABOR \$'s Thru Safety Lae	OR \$'s
WORK DELAYS CAUSED BY MONITORING 0.0%	\$427,840	\$0
WORK DELAYS CAUSED BY RAD CHECKING 0.0%	\$427,840	OR \$'s
		OTAL GRAND IAT'L. TOTAL
TOTAL HEALTH PHYSICS	\$100	5200 \$300

(FORWARD TO ESTIMATE SUMMARY SHEET)

ESTIMATE SUMMARY SHEET

PROJECT:

OSDF BASELINE BORROW AREA CCPL2 FY08

CLIENT:

ESTIMATE #: C2-01-05-07-28

DOE 1.1.C.D FLUOR FERNALD

DATE:

17-May-01

ESTIMATOR: RIS

LOCATION: FERNALD TASK NO .: CCPL2

	I.C.D EM DESCRIPTION	M/H	RATE	LABOR \$	S/C \$	MAT'L\$	EQUIP. \$	TOTAL \$
			- 1					
nsurance & Bond					\$26,120			\$26,1
Submittals		694		\$25,250	·	\$200		\$25,4
Overhead and Profit	1	.		 ,	\$155,490			\$155,4
, , , , , , , , , , , , , , , , , , ,	·	.	.		Ψ.ου,			▼
Mobilization		52		\$1,230	\$4,790	\$4,500		\$10,
Site Preparation		440		\$10,330	▼ .,	\$8,780	\$5,090	\$24,
Screening		5,600		\$136,610	1	 1	\$289,030	\$425,
nterim Restoration		600		\$14,470	\$28,930	\$3,150	\$23,530	\$70,
Demobilization		52		\$1,230	V -,	. ••	V ,	\$1,
Jeniobinacio.				V .,	1		١	*
			:					
• •								
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		.		1				
		1						
Project Staffing		1,930		\$61,250				\$61,
Toject Stanning		1,300		Φ01,200				Ψυ.,
		l		}				1
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	1	1						ĺ
			1	1			·	
•		-	1	1				
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								<u> </u>
DIRECT	FIELD COSTS TOTAL	9,368	\$26.73	\$250,370	\$215,330	\$16,630	\$317,650	\$799
SUPERVISION - CO	ONTRACTOR							
SMALL TOOLS & C	CONSUMABLES	- '	. •	-		\$3,400	1 1	\$3
MISC. EQUIP. REN	ITAL	-	- /	-			\$13,000	\$13
TEMPORARY FAC	ILITIES incl w/Mobilization		1	· .	1			
TEMPORARY UTIL	LITY HOOK-UP incl w/Mobilzation	1		1	1			
JOB CLEAN-UP ind	cl w/Job Close-out	1						
PER DIEM / SUBSI	ISTANCE	-		-				
HEALTH PHYSICS	SS/C incl-w/Submittals	-						_
	NG incl w/Submittals	1	1	1	i			
	S & JOB SPECIFIC TRAINING W/SU	1	1		-			
PAYROLL BURDE		-	- 1	\$142,700				\$142
OVERHEAD & PRO		-	-	-				ĺ
BOND		-	- 1	-				
SALES TAX		-	-			\$1,200	\$19,800	\$21
	T FIELD COSTS TOTAL			\$142,700	•	\$4,600	\$32,800	\$180
	DIRECT FIELD COSTS TOTAL	9,368	\$41.96	\$393,070	\$215,330	\$21,230		
	:							
	TIMATE			(FY 01 DO				\$980

ESTIMATE PERFORMED BY ESTIMATING SERVICES

ES'	TIMATE SUMM	ARY SHE	ET			
PROJECT: OSDF BASELINE BORROW AREA CCPL2 F					DATE:	17-May-01
ESTIMATE NO. C2-01-05-07-28	FACTOR	₹ S			ESTIMATOR:	RIS
CLIENT: DOE WBS NO.: 1.1.C.D					LOCATION: TASK NO.:	FERNALD CCPL2
FIXED PRICE !	LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE \$	TOTAL \$
DFC DOLLARS	\$250,370	\$215,330	\$16,630	\$317,650		\$799,98
IFC COST FACTOR	1.5700	-	1.2044	1.0409	-	
BOND + OVERHEAD & PROFIT COST FACTOR	1.0000	1.0000		1.0000		
SALES TAX	<u> </u>	-	1.0600	1.0600	1.0600	
DIRECT FIELD COST_FACTOR =	1.5700	1.0000	1.2767	1.1034	1.0600	
BASE ESTIMATE \$'S	\$393,070	\$215,330	\$21,232	\$350,489		\$980,12
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
TARGET ESTIMATE FACTOR	1.5700	1.0000	1.2767	1.1034	1.0600	

FPS TARGET ESTIMATE (FY01 \$)	\$393,070	\$215.330	\$21,232	\$350,489		\$980,12

NOTE:

IF THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

	OSDF BASELINE BORROW AREA CCPL2 F		CT FIELD	ARY SHE	·		DATE: ESTIMATOR:	17-May-01
	DOE		/FACTO				LOCATION:	FERNALD
WBS NO.:	1.1.C.D		·				TASK NO.:	CCPL2
PAY ITEM NO.	DESCRIPTION		LABOR\$	S/C \$	MAT'L. \$	EQUIP. \$	PPE\$	TOTAL \$
	·		(ASSIGN OR I	PRORATE PP	E MAT'L.\$'S)-	>>		*
	·							
							[
•	·							
	Insurance & Bond			26,120				26,1
			1.	\$26,120			[\$26,1
	·		05.050		000		1	05.4
	Submittals		25,250		200 \$260		1	25,4 \$39,9
			\$39,640		\$260		!	\$39,5
	Overhead and Profit		1	155,490		•	1	155,4
	Overnead and Profit		!!	\$155,490 \$155,490			1	\$155,4
				\$100,490			1 4	φ100,7
						•]	
	•		1				1 1	
			1 1				1 1	
	Mobilization		1,230	4,790	4,500		1	10,5
			\$1,930	\$4,790			İ	\$12,4
	1			+ 11.00	+3,) †	· · - • · ·
•	Site Preparation		10,330		8,780	5,090		24,2
•			\$16,220		\$11,210			\$33,0
	l						1	
	Screening		136,610			289,030		425,6
•			\$214,470			\$318,910) [\$533,3
	·			•				
	Interim Restoration		14,470	28,930				70,0
	·	•	\$22,720	\$28,930	\$4,020	\$25,960) [\$81,6
					·		I	•
	Demobilization		1,230					1,2
•			\$1,930				1	\$1,9
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	Survey		1			•]	
	<u> </u>					I		
	1							
	Project Staffing		61,250				1	61,
			\$96,160					\$96,
			1				1	
	1					1		
	<u> </u>							
TOTAL DIRECT			\$393,070	\$215,330	\$21,240	\$350,490		\$980,

CONTRACTOR - Stated in FY01 DOLLARS

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY08
ESTIMATE NO.: C2-01-05-07-28
CLIENT: DOE
WBS NO.: 1.1.C.D

1		210	FINIT		AAN DOLLDS	-		TIMIT / TAOS	T.1131.		1 ABOR	Sign	MATI	FOLIIP	TOTAL
Σ Π	SUMMAKT	5		-	אססטו-אואין	- [1500	1		אסמט	26	7 17 17	1001	
0 N				ji S	Total	Rate	Labor	S/C	Mat'i	Eduip					
	Insurance & Bond											\$26,120			\$26,120
	Submittals				694						\$25,250		\$200		\$25,450
	Overhead and Profit				•							\$155,490			\$155,490
	Mobilization				52						\$1,230	\$4,790	\$4,500		\$10,520
	Site Preparation				440						\$10,330		\$8,780	\$5,090	\$24,200
	Screening				2,600						\$136,610			\$289,030	\$425,640
	Interim Restoration				009		•		:		\$14,470	\$28,930	\$3,150	\$23,530	\$70,080
	Demobilization				52						\$1,230				\$1,230
• •											* .		***************************************		
															•
						·//·		•							
														•	
													· · · · · · · · · · · · · · · · · · ·		
	Project Staffing		• .		1,930						61,250				\$61,250
4	S. C. C. C. C. C. C. C. C. C. C. C. C. C.	Transfer of the second	LOT		\$5.9368 \$1\$26773	#\$26773					\$250,370	\$215,330	3.4.2.5.6.1.3.7.0 [1] (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	18059/7/5503/	086,667\$ \$280
5		The latest of th	duo a const		Company of the company										

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY08 ESTIMATE NO.: C2-01-05-07-28 CLIENT: DOE WBS NO.: 1.1.C.D

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TOTAL			\$26,120	\$9,110 \$7,590 \$8,450		\$300	\$25,450	e4EE 400	064,0014				
EQUIP													
MAT'L						\$200	\$200						
s/c			\$26,120					4 7 7 7	9133,480				
LABOR				\$9,110 \$7,590 \$8,450		\$100	\$25,250						
	1 Equip												
COSTAUNIT	S/C Mat'l	COST THRU OH & P	932964		•								
	Labor			01.01.00				•					
T	Rate			50.62 50.62 26.73		23.64							
MAN-HOLIRS	Total			180 150 360		4	694						
Ž	Cait			30 5 18				ò	%0Z		 		
LINI				ឌឌឌ									
VIO				30 20 20		:							
		1.3%	2.8%	ig, cnstrct work fo					·				
		Insurance & Bond Performance bond	For both FY Sub-total	Submittals Plans Technical submittals Site access & GET traing, cnstrct work fo		Health Physics	Sub-total	Overhead and Profit					
TEM	Š.			000		۵	T	UI.	•		 ·		H

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY08
ESTIMATE NO.: C2-01-05-07-28
CLIENT: DOE
WBS NO.: 1.1.C.D

TOTAL		\$3,800		\$920 \$270 \$4,300	\$1,230				SERVE SKI DEFE
EQUIP									
MAT'L				\$200					WWW.WWX.500
S/C		\$3,800	·	\$920					2 UD Z3/V36-08
LABOR					\$1,230				STATE STATE OF THE
	Equip								
COST/UNIT	Mati			40					
LSOO	S/C	350		. 85					
	Labor						,		
s	Rate				23.64				
MAN-HOURS	Total				52				C I C
	·Unit				ന				
UNIT		ОМ		MTH HTH	E				i)
QTY		5.4		& & & & & & & & & & & & & & & & & & &	15			•	
		2 reqd		, \$8/jug					P) 202 (Cont) 202 (Con) 202 (Cont) 202 (Con)
Mobilization		Heal stress / support trailers		2 ea Potable water, Allow 5jug/mth, \$8/jug	D Mobilize contractor equipment			·	
		Heat stress		Portable toll Potable wat	Mobilize cor				
L		• .			۵			•	

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY08
ESTIMATE NO.: C2-01-05-07-28
CLIENT: DOE
WBS NO.: 1.1.C.D

TOTAL		\$300 \$1,360 \$810 \$390 \$220	\$3,500 \$910	\$2,780 \$4,530	\$910 \$1,240 \$1,240 \$470 \$320 \$150 \$160 \$100	\$230 \$230 \$810 \$1,850 \$160 \$140
TC		0.0			9,000,00	0.00
EQUIP		\$390			\$1,240 \$470 \$110 \$320 \$150 \$40	\$1,850 \$160 \$140
		\$300	8	08.	000	
MAT'L		€	\$3,500	\$2,780	\$2,100 \$100	
S/C						
JR.	1967 PM	\$1,360	\$910	\$4,530	\$910 \$540	\$230 \$810
LABOR		↔		·. 69		
	Equip	2,800			11,490 4,335 985 32.15 15.48	11,490 160 16,05 32.15
L.	Mat'i	0:30	3,500	\$1.05	27 0	
COST/UNIT	S/C					
	Labor					
	\dashv	03 03	65	65	22.65	22.86 22.65 27.03
ss S	Rate	22.65) 22.65	22.65	·	
MAN-HOURS	Total	30	40	200	20	10 10 30
	Unit	10 10 26	10	0	00 00	01 10 10 8.5
TIND		LF DAY DAY MTH HRS	DAY	LF DAY	DAY MTH MTH HRS HRS LF	DAY DAY MTH DAY HRS HRS
QTY		1,000 LF 3 DV 0.14 M	7	2,650	2 0.09 0.09 0.09 17 100	
		85%		2 wks	2 day : 2 day : 2 day : 50% 50% 85%	3 day : 85% 85%
ā						
Site Preparation		16 16 at	r, 8'x12'	81	Irface Water Management 2 laborer 1 operator Excavator Cat 330 Compactor Valk behind Excavator Cat 363 at Compactor Cat 563 at Compactor Walk behind Swar Can 330 at Compactor Walk behind at Swar Can 563 at Bedding	330 330 at
Site		<u>tfence</u> 2 laborer 1 operator Backhoe Cat 416 Backhoe Cat 416 at	ld trailer er	<u>lion fenc</u> er	Irface Water Manager 2 laborer 1 operator Excavator Cat 330 Compactor Cat 563 Compactor Cat 563 Compactor Cat 563 Compactor Cat 563 Compactor Cat 563 Bedding	cavate ditch 1 teamster 1 laborer 1 operator Excavator Cat 330 Haul truck Haul truck at Excavator Cat 330 at
		Silt fence 2 laborer 1 operator Backhoe C Backhoe C	Set up field trailer, 8'x12' 2 laborer	Construction fence 2 laborer	Surface Water Management 2 laborer 1 operator Excavator Cat 330 Compactor Valk behind Excavator Cat 363 Compactor Walk behind Excavator Cat 330 at Compactor Walk behind a 30" CMP	Excavate ditch 1 teamster 1 laborer 1 operator Excavator Ca Haul truck Haul truck at Excavator Ca
ITEM	NO.	00		۵	ω ₁	

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY08 ESTIMATE NO.: C2-01-05-07-28 CLIENT: DOE WBS NO.: 1.1.C.D

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TOTAL			West Coaronn
EQUIP			のである。 のでは、これでは、一般では、これでは、これでは、これでは、これでは、これでは、これでは、これでは、これ
MAT'L			Mose nest capton
S/C			
LABOR			Section 1
	Equip		Contraction of the Contraction o
COST/UNIT	Maťi		
SOS	S/C		AN INSTANTON
L	Labor		32
JRS	Rate		
MAN-HOURS	Total		CENTRAL PROPERTY.
L	Ę		The suppose of the
Y			Section Reven
ΔIO			SATE PETE GRAPHS
Site Pres cont'd			
-			
ITEM	Š	A Marin Control of the Control of th	

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY08
ESTIMATE NO.: C2-01-05-07-28
CLIENT: DOE
WBS NO.: 1.1.C.D

TOTAL		
EQUIP		
MAT'L		
S/C		
LABOR		
	Equip	
JUNIT	Mat'i	
COSTAUNIT	s/c	
	Labor	
SS.	Rate	
MAN-HOURS	Total	
L	Ē	12
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QTY		TALEST SANCE OF THE
ITEM	NO.	

CONTRACTOR - Stated in FY01 DOLLARS

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY08
ESTIMATE NO.: C2-01-05-07-28
CLIENT: DOE
WBS NO.: 1.1.C.D

TOTAL		\$64,000	\$56,760 \$15,850 \$42,470	\$37,120 \$102,160 \$23,600	\$19,130 \$64,550	M 5,425,640
EQUIP			\$42,470	\$37,120 \$102,160 \$23,600	\$19,130 \$64,550	数据数\$2891030 排数数 \$4251640
MAT'L				•		
S/C				·		
LABOR		\$64,000	\$56,760 \$15,850		-	
	Equip		13145	11490 7905 39.66	32.15	
COST/UNIT	Mat1					
SOO	S/C					
	Labor					
	Rate		27.03 22.65			
MAN-HOURS	Total	2800	2100			009/9
/W	Unit		66	595	595 595	
TINO		soil law	DAY DAY MTH	MTH MTH HRS	HRS HRS	
QTY		Ne. & tol	70 70 3.23	3.23 3.23 85%	85% 85%	
		touring, Vegetat	1 reqd	1 reqd 4 reqd		
A Screening		Screening Nor required Excavate & Stockpile Contouring, Vegetative, & topsoil lavers 4 teamster	3 operators 1 laborer Dozer, D8	Excavator Cat 330 Truck, Volvo A30 Dozer, D8 at	Excavator Cat 330 at Truck, Volvo A30, at	ration in the Section of the Colonia C
ITEM	Š.	٥	۵۵			*

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY08
ESTIMATE NO.: C2-01-05-07-28
CLIENT: DOE
WBS NO.: 1.1.C.D

DATE: 17-May-01
ESTIMATOR: RIS
LOCATION: FERNALD
TASK NO.: CCPL2

LOCATION: TASK NO.:

•											
TOTAL			\$5,410 \$9,060 \$7,610 \$8,310	\$4,210 \$3,400	\$150	\$3,000 \$28,930					080,022
EQUIP			\$7,610 \$8,310	\$4,210 \$3,400							# \$23,530 B
MAT'L					\$150	\$3,000					A 15 A 150 A
S/C						\$28,930			·		\$ \$28,930 B
LABOR			\$5,410 \$9,060								38.8.5.14.470
	Equip		8,245 9,000	24.76							
UNIT	Mat'l				0:30	09.0					
COST/UNIT	S/C		·			0.83					
	Labor	·									
S	Rate		27.03 22.65			·					C#765#
MAN-HOURS	Total		200 400				• .			-	600
Ž	Cnit		5 0	170 170				-			
UNIT			DAY DAY MTH MTH	HRS	F	SY SY					KI*OTA
QTY			20 20 0.92 0.92	85% 85%	200	5,000					La la care
ation			1 reqd			7.5 ac					Money and Market
Interim Restoration			1 operators 2 laborer Dozer, D6 LGP Tractor, Challenger	Dozer, D6 LGP at Tractor, Challenger at	Silt fence	Erosion mat -jute Permanent seeding					**************************************
ITEM	Š.	1	۵۵								

1.1.C.D WBS NO.:

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY08
ESTIMATE NO.: C2-01-05-07-28
CLIENT: DOE

17-May-01 RIS FERNALD CCPL2 DATE: ESTIMATOR: I LOCATION: I TASK NO.:

550 600 600 600 600 600 600	_								
17 17 17 17 17 17 17 17	TOTAL		\$3,250 \$2,260 \$1,570 \$7,070 \$14,940 \$16,160	\$61,250				•	BJ CZOSKOSO BROVSKI
TOTAL MANHOURS STATE MANHOURS STATE MANHOURS STATE MANHOURS STATE MANHOURS STATE MANHOURS STATE MANHOURS STATE MANHOURS STATE STAT	EQUIP								
Triple Street Triple T	MAT'L	355							
Title Manual Shared Sh	S/C								
No. North	LABOR	表 1000 1000 1000 1000 1000 1000 1000 10	\$3,250 \$2,260 \$17,570 \$7,070 \$14,940 \$16,160	\$61,250	:				S. BERGER HELLEN STEEN STEEN STEEN
Project Starting Shared Project Starting Pr		Equip							
No. No.	JUNIT.	Maťi							
Project Starfing Shared Project Starfing Project Starfing Project Starfing Project Starfing Project Manager S.4 min 10%	LSOO	S/C			•				
Project Staffing Shared Project Staffing Project Staffing Project Staffing Project Staffing Project Staffing Project Staffing Project Staffing Project Engineer S.4 mih 25% hr 2 533 32.99		Labor				~~~			2
17EM	RS	Rate				•			
Project Starfing	JAN-HOU	Total	60 60 63 63 63 63 63 63	1,93(
No. No. Project Staffing Deficering Deficient Defi		Cnit	N- N N						
Project Staffing Project Staffing Project Staffing Definition	S FNS								
Project Staffing Project Manager Broject Manager Conspect Engineer Coulting Engineer Contract Administration Contract Administration Clerical Clerical Contract Administration Contract Ad	QTY		الد غ						
No. Project Staffing Project Manager General Superintendent D Superintendent D Project Engineer D Quality Engineer D Safety Engineer D Office Administration Contract Administration Contract Administration Clerical			5.4 mth 5.4 mth 5.4 mth 5.4 mth 5.4 mth 6.4 mth In overhe in overhe	TOTAL					
NO. DO DO DO DO DO DO DO DO DO DO DO DO DO			Project Staffing Project Manager General Superintende Superintendent Project Engineer Quality Engineer Safety Engineer Coffice Administration Contract Administration				·		
	ITEM	NO.							

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY08
ESTIMATE NO.: C2-01-05-07-28
CLIENT: DOE
WBS NO.: 1.1.C.D

17-May-01 RIS FERNALD CCPL2 DATE:
ESTIMATOR: F
LOCATION: F
TASK NO.:

<u> </u>		\$3,250 \$2,260 \$17,570 \$7,070 \$14,940 \$16,160	\$61,250								
TOTAL		8 6 E 8 E	\$6	e."					•		
EQUIP					19-y-1-9-4-1-y-1						
EQ							·····		•	 	
MAT'L	J. Carlotte					÷					
N			<u> </u>							 	
S/C						·					
LABOR		\$3,250 \$2,260 \$17,570 \$7,070 \$14,940 \$16,160	\$61,250	·.							
EAB			₩								
	Equip										
UNIT	Mat'i										
COST/UNIT	S/C								• .		
	Labor										
	Rate	54.42 37.85 32.99 33.19 28.05 19.34 19.31	31.73								
MAN-HOURS	Total	60 60 533 533 533 533	1,930								
MAN	Unit	1 + 2 + 2 2									
TINO		4444									
ατγ υ		Shared percent 10% 10% 25% 25% 25% 25% 25% and and and and and and and and and and						•			
Ľ		Sh 5.4 mth 5.4 mth 5.4 mth 5.4 mth In overhead In overhead In overhead	-							 	
		5.5.4 5.6.7 5.6.4 5.6.7 5.6.7 10.0 10.0 10.0	TOTAL								i kuste kita kita
		ndent n tion/ Sch	-				•				
		ing nager uperinter dent jineer jineer ineer inistratio									eli in Goin
		Project Staffing Project Manager General Superintendent 5.4 mth Superintendent 5.4 mth Project Engineer 5.4 mth Auality Engineer 5.4 mth Cuality Engineer 5.4 mth Cuality Engineer 5.4 mth Contract Administration in overhead									
ITEM	Ö.	0000000									

HEALTH PHYSICS

PROJECT:

OSDF BASELINE BORROW APEA COPUS FOR FERNALD DATE: 17-M ESTIMATOR: RIS LOCATION: FER

17-May-01

ESTIMATE NO. C2-01-05-07-28

CLIENT: WBS NO.:

1.1.C.D

LOCATION: FERNALD TASK NO .: CCPL2

PPE"s - PERSONAL PROTECTIVE EQUIPMENT

		UNIT		* NO. O	F CHANGE OUT	S PER WORKER	PER DAY
DESCRIPTION	UNIT	COST	Man Da	ys (TOTAL HOURS	worked in PPE's Di	w. by WORK HOURS /	DAY)
PPE LEVEL C / C+ / B: F/HF MASK w/RESP.&CA	RT.		*	MAN DAYS	MAT'L\$'s	PPE LEVEL	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	0	\$0	C / C+	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	0	\$0	C/C+	(DOUBLE PPE)
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	0	\$0	C / C+	
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	0	\$0	C / C+	
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	0	\$0	C / C+:	
APR CARTRIDGES - DISPOSABLE	· PR	\$6.98	3	0	\$0	C/C+	
SUB-TOTAL		\$17.42	3		50		
				¢/M/D =	\$0.00		

\$0.00

PPE LEVEL mC: FULL DRESS w/ FACE SHIELD				MAN DAYS	MAT'L.\$'s	PPE LEVEL
LT.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIE	PR	\$4.46	3	0	\$0	mC
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	0	\$0	mC
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	0	\$0	mC
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	0	\$0	mC
SUB-TOTAL	Ţ	\$5.98	3		50	

\$/MD = \$0.00

			QTY. PER	NO. OF		
SUBCONTRACTOR REQUIRED PURCHASES			WKR.	WORKERS	MAT'L\$'s	PPE LEVEL
RUBBER-BOOT-COVERS-(1)PR.PER-WORKER	PR	\$12.70	2	8	\$203.	D/C/B
APR w/HALF FACE MASK - (1) PER WORKER	EA	\$22.30	6	0	\$0	,C, / `
APR w/FULL FACE MASK - (1) PER WORKER	EA	\$174.00	6	0	\$0	C
SCBA	EA	\$1,894.00	. 2	0	\$0	. ⋅ B
COOL VESTS	EA	\$137.50	6	0	\$0	. C/B
THERMO STRIPS	EA	\$50.00	- 6	0	\$0	L C/B
SUR TOTAL	-		-		86888888E2000	

SUB-TOTAL \$200

TOTAL PPE's =

MAT'L.\$'s \$200

(FORWARD TO PAGE 2 OF 2)

OTHER PPE's SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. COSTS OF FD FERNALD SUPPLIED PPE'S, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCURRED BY FD FERNALD AND COSTS ARE NOT INCLUDED AS PART OF PROJECT COSTS AT THIS TIME.

APPENDIX "C"

OSDF BASELINE BORROW AREA CCPL2 FY08 PROJECT:

ESTIMATE NO. C2-01-05-07-28
CLIENT: DOE

WBS NO.:

1.1.C.D

DATE:

17-May-01

ESTIMATOR: RIS

LOCATION: FERNALD

TASK NO.: CCPL2

-MEDICAL MONITORING -

MEDICAL - PHYSICAL and IN-V	IVO MO	NITORING	- LOST	WORKER T	IME for RAD	II WORKERS
					AVG.	
DESCRIPTION	QTY	HRS	WKR	TOTAL	LABOR	TOTAL
PHYSICAL (3hrs), IN-VIVO (1hr)				HOURS	RATE	LABOR \$
BASELINE PHYSICALS	1	4	0	0	\$26.73	\$0
ANNUAL PHYSICALS	0	4	0	0	\$26.73	\$0
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	0	0	\$26.73	\$0
SUB-TOTAL					_	\$0

RADIATION IN-VITE	RO SURVEILLAI	NCE - LOS	ST WOR	KER TIME f	or RAD II WO	RKERS ONLY
DESCRIPTION	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR \$
BI-MONTHLY BIOASSAY	6	1	0	0	\$26.73	\$0
SUB-TOTAL						\$0

R	ANDOM DR	UG TE	STING		•	
	TESTS	HRS	TOTAL HOURS	AVG. RATE	LABOR \$'s	
·	1	2	2	\$26.73	\$100	
NO. OF	TESTING	AVQ. NO.	CHANCE!	NO. OF WKRS.	CHANCES	CONSTR
WKRS.	DAYS	OF TESTS	DAY	FOR THIS	/DAY FOR TEST	working .
 TESTED	PER YR.	PER DAY	FOR TEST	ESTIMATE	FOR PROJECT	DAYS
2340	226	10	0.0042735	1	0.0043	135

	LABOR \$'s THRU SAFETY LABOR	R \$'s
WORK DELAYS CAUSED BY MONITORING 0.0%	\$250,370	\$0
	LABOR	₹ \$'s
WORK DELAYS CAUSED BY RAD CHECKING 0.0%	\$250,370	\$0
• '		
	TOTAL TOTAL LABOR MAT	
TOTAL HEALTH PHYSICS	\$100 \$20	0 \$300
	(FORWARD TO ESTIMAT	SUMMARY SHEET)

ESTIMATE SUMMARY SHEET

PROJECT: **OSDF BASELINE BORROW AREA CCPL2 FY09**

ESTIMATE #: C2-2001-05-007-29

CLIENT:

DOE

FLUOR FERNALD

DATE:

17-May-01

ESTIMATOR: RIS LOCATION: FERNALD

NBS #: 1.1.C.D							CCPL2
ITEM DESCRIPTION	M/H	RATE	LABOR\$	S/C\$	MAT'L\$	EQUIP.\$	TOTAL \$
•		·		1		ĺ	
nsurance & Bond				\$4,610		-	\$4,61
ubmittals	110		\$5,570		\$200		\$5,77
erhead and Profit				\$27,450			\$27,45
				1		· [
lobilization	35		\$830	\$390	\$4,400	1	\$5,62
ite Preparation	50		\$1,270	.		\$2,150	\$3,42
creening ·							
nterim Restoration	900		\$21,700	\$57,850	\$300	\$22,650	\$102,50
emobilization	35		\$830	1		.	\$83
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roject Staffing							
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				l			
DIRECT FIELD COSTS TOTAL	1,130	\$26.73	\$30,200	\$90,300	\$4,900	\$24,800	\$150,20
SUPERVISION - CONTRACTOR		-					
SMALL TOOLS & CONSUMABLES	-	-	-		\$400		\$40
MISC. EQUIP. RENTAL	-	-	-			\$1,500	\$1,50
TEMPORARY FACILITIES incl w/Mobilization				1		l	
TEMPORARY UTILITY HOOK-UP incl w/Mobilization						1	
IOB CLEAN-UP ind w/Job Close-out						ĺ	
PER DIEM / SUBSISTANCE	-	-	-				
HEALTH PHYSICS S/C incl w/Submittals						1	. ·
CERCLA - TRAINING incl w/Submittals							
GET/SITE ACCESS & JOB SPECIFIC TRAINING w/s							
PAYROLL BURDENS & BENEFITS	-	-	\$17,200				\$17,20
OVERHEAD & PROFIT	-	-	-				
BOND	-	-	-			-	
SALES TAX	-	-	- ,		\$300	\$1,600	\$1,90
INDIRECT FIELD COSTS TOTAL			\$17,200		\$700	\$3,100	\$21,0
DIRECT & INDIRECT FIELD COSTS TOTAL	1,130	\$41.95		\$90,300	\$5,600	\$27,900	\$171,2
					,-,-,-		
				LLARS)			

ES	TIMATE SUMM	ARY SHE	ET			
PROJECT: OSDF BASELINE BORROW AREA CCPL2 F					DATE:	17-May-01
ESTIMATE NO. C2-2001-05-007-29	FACTO	R.S			ESTIMATOR:	RIS
CLIENT: DOE					LOCATION:	FERNALD
WBS NO.: 1.1.C.D					TASK NO.:	CCPL2
FIXED PRICE !	LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE\$	TOTAL \$
DFC DOLLARS	\$30,200	\$90,300	\$4,900	\$24,800		\$150,200
IFC COST FACTOR	1.5695	-	1.0816	1.0605	-	
BOND + OVERHEAD & PROFIT COST FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
SALES TAX	•	•	1.0600	1.0600	1.0600	
DIRECT FIELD COST FACTOR =	1.5695	1.0000	1.1465	1.1241	1.0600	•
BASE ESTIMATE \$'S	\$47,400	\$90,300	\$5,618	\$27,878		\$171,196
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
TARGET ESTIMATE FACTOR	1.5695	1.0000	1.1465	1.1241	1.0600	
FPS TARGET ESTIMATE (FY01 \$)	\$47,400	\$90,300	\$5,618	\$27,878		\$171,196

NOTE:

IF THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

PROJECT: ESTIMATE NO	OSDF BASELINE BORROW AREA CCPL2 F		ATE SUMN ECT FIELD		ET		DATE: ESTIMATOR:	17-May-01 RIS
CLIENT:	DOE	W	FACT	ORS		·	LOCATION:	FERNALD
WBS NO.:	1.1.C.D DESCRIPTION			0/0 6	MATIL C	FOLUD 6	TASK NO.:	CCPL2
PAY ITEM NO.	DESCRIPTION		LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE\$	TOTAL \$
·			(ASSIGN OR	PRORATE PP	E MAT'L.\$'S)-	->> 		
	Insurance & Bond			4,610 \$4,610			· t	4,61 \$4,61
	Submittals		5,570		200			5,77
	Overhead and Profit		\$8,740		\$230			\$8,97
	Overnead and Profit			27,450 \$27,450				27,45 \$27,45
	Mobilization		830	390	4,400			5,62
	THE STREET STREET		\$1,300					\$6,73
	Site Preparation		1,270 \$1,990		·	2,150 \$2,420		3,42 \$4,41
	Screening	J	Ţ.,000			Ψ2,720		ψτ ₁ -7 1
				·				
	Interim Restoration		21,700 \$34,060	57,850 \$57,850				102,50 \$117,71
	Demobilization		830					83
	<u>-</u>		\$1,300	· -				\$1,30 —
			·					
				•				
	Survey							
	Project Staffing			· .				
				·				
OTAL DIRECT	<u> </u>		\$47,390	\$90,300	\$5,610	\$27,880		\$171,1

			3	

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY09
ESTIMATE NO.: C2-2001-05-007-29
CLIENT: DOE
WBS NO.: 1.1.C.D

		Г						1,1000			a Vav	Jio	MAT	all 103	TOTAL
TEM	SUMMARY	A I	5	١	MAN-HOURS	- 1		1000			NOON	000	T I VIOL	רעטו	10101
ġ				iğ S	Total	Rate	Labor	S/C	Matri	Edulp					
	Insurance & Bond											\$4,610			\$4,610
						-									
	Submittals				110	-					\$5,570		\$200		\$5,770
	Overhead and Profit					-						\$27,450			\$27,450
	Mobilization				32	_					\$830	\$390	\$4,400		\$5,620
	Site Preparation				20	-					\$1,270			\$2,150	\$3,420
,		•				-									
	Screening		-										•		
	Interim Restoration				006	. <u>-</u>				-	\$21,700	\$57,850	\$300	\$22,650	\$102,500
	Demobilization				35			•			\$830				\$830
,		,				•									
										•					
	Project Staffing					<u>-</u> .		***************************************							
										· · · · · · ·					
		-	٠,										• .		
	25 C. C. C. C. C. C. C. C. C. C. C. C. C.		HOT		1001	\$2673					\$30,200	新版版 第307200] 第28 卷\$90/3009 第686 84/9000	\$1,000 \$4,000	K#8#\$24;800	\$150,200

CONTIRACTOR - Stated in FY#1 DOLLARS

DETAIL ESTIMATE WORKSHEETS

FLUOR FERNALD PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY09
ESTIMATE NO.: C2-2001-05-007-29
CLIENT: DOE

1.1.C.D

CLIENT: WBS NO.:

17-May-01 RIS DATE: ESTIMATOR:

FERNALD CCPL2 LOCATION: TASK NO.:

TOTAL	IOIAL			\$4,610	\$3,040 \$2,530		\$200	\$5,770	\$27,450					·	
91100	EQUIP				·										
, TAIL	MAIL					-	\$200	\$200							
9	S/C			\$4,610					\$27,450						
0004	LABOR				\$3,040 \$2,530			\$5,570					AM		
	+	Mat'i Equip													
THE PERSON	<u>ş</u> -	-	COST THRU	164688								 ***********			
	+	te Labor		-	50.6 ² 50.62		23.64					 	_		-
0011011144	SSI	Total Rate			50 5			110			•		·		
		Cnit			30				20%	·					
1	QTY UNIT				2 10 EA	 						· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
			1.3%	2.8%											
			Insurance & Bond Performance bond	For both FY Sub-total			Health Physics	Sub-total	Overhead and Profit	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					
	ITEM	Š.			۵۵		۵			·					

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY09
ESTIMATE NO.: C2-2001-05-007-29

FLUOR FERNALD

DOE 1.1.C.D

CLIENT: WBS NO.:

TOTAL				\$360 \$130 \$4,300	\$830				**************************************
EQUIP									
MAT'L				\$100			***************************************		38 4 84 A 00
S/C				\$360					\$830 \$ \$
LABOR					\$830				0688
	Equip								
느	Mat'i			40					
COST/UNIT	S/C	350		85					
	Labor			:					
	Rate		-		23.64	-			_
MAN-HOURS	Total				35				36
	Cult				က				
TIND		MO		MTH MTH	. Е			-	
ΩTY		2.1		2.2.	10				_
		0 reqd		2 ea h, \$8/jug	#		·		
Mobilization		Heat stress / support trailers		2 ea Potable water, Allow 5jug/mth, \$8/jug	Mobilize contractor equipment				Mesulpation
5		Heat stress / s	·	Portable toilets Potable water,	Mobilize contra				
					۵		•		

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY09
ESTIMATE NO.: C2-2001-05-007-29
CLIENT: DOE
WBS NO.: 1.1.C.D

_	_	 	
TOTAL			\$230 \$230 \$810 \$1,850 \$160 \$140
EQUIP			\$1,850 \$160 \$140
MAT'L			\$230 \$230 \$230 \$810 \$160 \$160 \$160 \$140 \$140
S/C			
LABOR			\$230 \$230 \$810
	Equip		
JNIT	Mat'l		11,490 160 16.05 32.15
COST/UNIT	S/C		
	Labor		
	Rate	· · · · · · · · · · · · · · · · · · ·	22.86 22.65 27.03
MAN-HOURS	Total		10 10 30
Ň	Set C		. 10 10 8.5
TINO			DAY DAY MTH DAY HRS HRS
QTY			0.14
ion			3 day : 85% 85%
Site Preparation			Excavate ditch
ITEM	NO.		O O O

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY09
ESTIMATE NO.: C2-2001-05-007-29
CLIENT: DOE
WBS NO.: 1.1.C.D

TOTAL		A 50,420
EQUIP		W \$2,450
MAT'L		WAS THE SHEED THE WAS
S/C	ACC. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	
LABOR		S 1/270
	Equip	
COST/UNIT	Mat'i	
COS	S/C	
	Labor	
URS	Rate	00
MAN-HOURS		
	Coit	
Y		
QTY		
ťď		100
Site Prep cont'd		Preparatic
Site		Sile
ITEM	NO.	
_		120

DETAIL ESTIMATE WORKSHEETS

17-May-01 RIS FERNALD CCPL2

DATE:
ESTIMATOR: FILOCATION: F

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY09
ESTIMATE NO.: C2-2001-05-007-29
CLIENT: DOE
WBS NO.: 1.1.C.D

_			
TOTAL			
EQUIP			ASTRONOSTRA
MAT'L			
S/C			
LABOR			800000000000000000000000000000000000000
	Equip		
UNIT	Matï		
COST/UNIT	s/c		
	Labor		
S	Rate		#IUI/NU##
MAN-HOURS	Total		
	Cuit		Name of Street, or other Persons
UNIT			TO N
ΩTY			Part of the state of
ITEM	Ñ.	·	*******

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY09
ESTIMATE NO.: C2-2001-05-007-29
CLIENT: DOE
WBS NO.: 1.1.C.D

Screening	_					_			-			_				_					_		~				_									7	7
WAAN-HOURS Unit Total Rate Labor SIG Mart Equip 10 22.86 10 22.06 113145 9000 11490 6820 13500 145 145 145 145 145 145 145 145 146 1460 17905	TOTAL																																				
WAAN-HOURS Unit Total Rate Labor SIG Mart Equip 10 22.86 10 22.06 113145 9000 11490 6820 13500 145 145 145 145 145 145 145 145 146 1460 17905	EQUIP																																				
WAAN-HOURS Unit Total Rate Labor SIG Mart Equip 10 22.86 10 22.06 113145 9000 11490 6820 13500 145 145 145 145 145 145 145 145 146 1460 17905	MAT'L																																				
MAN-HOURS Unit Total Rate 10 22.86 10 27.03 10 22.65 10 22.65 10 22.86 10 27.03 10 27.03	S/C																									to de la constanta							,10				THE RESERVE THE PARTY OF THE PA
MAN-HOURS Unit Total Rate 10 22.86 10 27.03 10 22.65 10 22.65 10 22.86 10 27.03 10 27.03	LABOR																																				I SALES CONTRACTOR OF THE PARTY
MAN-HOURS Unit Total Rate 10 22.86 10 27.03 10 22.65 10 22.65 10 22.86 10 27.03 10 27.03		Equip						13145	0006	11490	6820	7905	13500	438	145	39.66	20.00	32.15	24.90	27.12	34.00	0.80	1.60						13145	7040	11490	7905	39.66	21.87	32.15	27.12	
MAN-HOURS Unit Total Rate 10 22.86 10 27.03 10 22.65 10 22.65 10 22.86 10 27.03 10 27.03	/UNIT	Mat'i																																			A
MAN-HOURS Unit Total Rate 10 22.86 10 27.03 10 22.65 10 22.65 10 22.86 10 27.03 10 27.03	COST	s/c	٠																																		
NAN-HOURS Unit Total 10 10 10 10 10 10 10		Labor																																			
Screening	S	Rate			22.86	27.03	22.65																			22.86	27.03	22.65									THE ROLL OF THE PARTY.
Screening	AN-HOUF	Total																																			
Screening Screening Oary Unit	Σ	Unit			10	10	9																			9	<u></u>	9									A STATE OF THE PARTY OF THE PAR
No. Screening Screening A.5 operators D 2 laborer Dozer, D8 I reqd Excavator Cat 330 Loader Cat 966 Truck, Volvo A30 Screener, priced as Extec w/2 2 reqd Cenerator, 5000 kw Tractor, Challenger at 1 reqd Screener, priced as Extec w/2 2 reqd Cenerator, 5000 kw Tractor, Challenger at 1 reqd Cenerator, 5000 kw Tractor, Challenger at 85% Excavator Cat 330 at 85% Cader Cat 966 at 1 reqd Screener, w/2 conv at 85% Cader Cat 966 at 85% Excavator Solot w at 85% Can partor 330 at 85% Can partor 330 at 1 reqd A teamster Dozer, D8 Truck, Volvo A30 Truck, Volvo A30 Dozer, D8 Truck, Volvo A30 Dozer, D8 Truck, Volvo A30 Dozer, D8 Truck, Volvo A30 Dozer, D8 Truck, Volvo A30 Truck, Volvo A30 Dozer, D8 at 85% Excavator Cat 330 at 85% Truck, Volvo A30 Truck, Volvo A30 Dozer, D8 at 85% Excavator Cat 330 at 85% Truck, Volvo A30, at 85% Truck, Volvo A30, at 85% Truck, Volvo A30, at 85% Truck, Volvo A30, at 85% Truck, Volvo A30, at 85%	FINS				DΑΥ	DĄ	DA≺	HIE	MTH	MTH	MTH	MTH	MTH	MTH	MTH	HRS	HRS	HRS	HRS	HRS	HRS	HRS	HRS			DA≺	₽Ą	DĄ	Σ Ε	MH	MH	MTH	HRS	HRS	HRS	HRS	STONE OF
No. Screening Dozer, D8 Tractor, Challenger Excavator Cat 330 Tractor, Challenger at Tractor, Challenger at Excavator Cat 330 at Tractor, Challenger at Excavator Cat 330 at Tractor, Challenger at Excavator Cat 330 at Connect Cat 966 at Tractor, Challenger at Excavator Cat 330 at Connect Cat 966 at Tractor, Challenger at Excavator Cat 330 at Connect Cat 966 at Tractor, Challenger at Excavator Cat 366 at Tractor, Volvo A30, at Screener, w/2 conv at 2" pump at Generator, 5000 kw at Conv	QTY															85%	85%	85%	85%	85%	85%	85%	82%	-	ative, & to								82%	85%	85%	82%	
No. Screening 3 teamster 4.5 operators Dozer, DB Tractor, Challenger Excavator Cat 330 Loader Cat 966 Truck, Volvo A30 Screener, priced as E 2" pump Generator, 5000 kw Dozer, DB at Tractor, Challenger al Excavator Cat 330 at Coder Cat 966 at Truck, Volvo A30, at Screener, w/2 conv a 2" pump at Concertor Code Stockpile Cc Excavate & Stockpile Cc D 3 operators D 1 laborer D 3 operators D 1 laborer D 2 pozer, D6 Excavator Cat 330 at Truck, Volvo A30 Truck, Volvo A30 Dozer, D6 Excavator Cat 330 at Truck, Volvo A30 Dozer, D6 Excavator Cat 330 at Truck, Volvo A30 Truck, Volvo A30 Dozer, D6 at Excavator Cat 330 at Truck, Volvo A30, at	Ď							1 regd	1 reqd	2 reqd	1 reqd	3 reqd	xtec w/2 2 reqd	1 redd	1 regd	•					-		±		untouring, Vegeta	•			1 redd	1 regd	1 redd	4 regd	•				TANK THE PROPERTY.
	Screening		•	Screening	3 teamster	4.5 operators	2 laborer	Dozer, D8	Tractor, Challenger	Excavator Cat 330	Loader Cat 966	Truck, Volvo A30	Screener, priced as Ex	2" pump	Generator, 5000 kw	Dozer, D8 at	Tractor, Challenger at	Excavator Cat 330 at	Loader Cat 966 at	Truck, Volvo A30, at	Screener, w/2 conv at	2" pump at	Generator, 5000 kw at		xcavate & Stockpile Co	4 teamster	3 operators	1 laborer	Dozer, D8	Dozer, D6	Excavator Cat 330	Truck, Volvo A30	Dozer, D8 at	Dozer, D6 at	Excavator Cat 330 at	Truck, Volvo A30, at	なればはいいています。
	ITEM	Š.			۵	۵	۵																			_	۵	۵									A STATE OF

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY09
ESTIMATE NO.: C2-2001-05-007-29
CLIENT: DOE
WBS NO.: 1.1.C.D

17-May-01 RIS FERNALD CCPL2

DATE: ESTIMATOR: LOCATION: TASK NO.:

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY09
ESTIMATE NO.: C2-2001-05-007-29
CLIENT: DOE
WBS NO.: 1.1.C.D

TOTAL		\$830						
2								
EQUIP								
MAT'L								
S/C								
LABOR		\$830						
ſ	Equip							
/UNIT	Mat'l		•					
COST/UNIT	S/C							
	Labor							
S	Rate	23.64						
MAN-HOURS	Total	35			· .	 		
Ž	Unit	ဗ						
UNIT		Ą						
QTV		10						
Demobilization		Demobilize contractor equipment						
TEM	NO.	a a			~	·	·	

1.1.C.D WBS NO.:

PROJECT: OSDF BASELINE BORROW AREA CCPL2 FY09
ESTIMATE NO.: C2-2001-05-007-29
CLIENT: DOE

TOTAL														Resident to the Construction of
EQUIP														
MATIL			-											
S/C														REAL PROPERTY OF THE PROPERTY
LABOR			-					-						
	Equip													Leavelle And College State Col
COST/UNIT	Mat'l										 			rough American by
COST	S/C					34.25 avg rate	•							Teruz Samuel Constitution
	Labor					34.25								
રડ ડેટ	Rate		54.42 37.85	32.39 33.19 28.05	30.34 19.31 25.58 14.58		#DIV/0I							No. of the State o
MAN-HOURS	Total													
2	Cnit		~ ~ (N – 8	8						ŧ		•	
ENS.				= = =	E				·				,	
QTY		Shared			و و و ه ه و									
				3.4 mth 3.4 mth 3.4 mth	3.4 mth In overhead du in overhead in overhead		₹			 				
3		Project Staffing					TOTAL	-						SEAN IVANS DE PROPERTY DE LA CAMPARTA DEL CAMPARTA DEL CAMPARTA DE LA CAMPARTA DE LA CAMPARTA DE LA CAMPARTA DEL CAMPARTA
ITEM	Š.		۵۵	000										

APPENDIX "C"

HEALTH PHYSICS

PROJECT: CLIENT:

WBS NO .:

ESTIMATE NO. C2-2001-05-007-29

DOE

1.1.C.D

OSDF BASELINE BORROW APEA CEPLO OR FERNALD DATE: 17-M C2-2001-05-007-29 FLUOR FERNALD ESTIMATOR: RIS LOCATION: FERI

17-May-01

LOCATION: FERNALD TASK NO.: CCPL2

PPE"s - PERSONAL PROTECTIVE EQUIPMENT

\$4.46 \$4.46 \$0.24 \$0.26	* 3 3 3	MAN DAYS 0 0 0	S worked in PPE's Di MAT'L.\$'s \$0 \$0 \$0	PPE LEVEL C / C+ C / C+ C / C+	(DOUBLE PPE)
\$4.46 \$0.24	· 3	MAN DAYS 0 0	\$0 \$0	C / C+ C / C+	(DOUBLE PPE)
\$4.46 \$0.24	· 3	0	\$0	C / C+	(DOUBLE PPE)
\$0.24	3	0			(DOUBLE PPE)
		0	\$0	C/C+	•
\$0.26	_				
\$U.Z0	3	0	\$0	C/C+	
\$1.02	3	0	\$0	C / C+	
\$6.98	3	0	\$0	.∵	
\$17.42	3		\$0		
		\$/MD =	\$0.00		
	\$6.98	\$6.98 3	\$6.98 3 0 \$17.42 3	\$6.98 3 0 \$0 \$17.42 3 \$0	\$6.98 3 0 \$0 C/.C+ \$17.42 3 \$3

PPE LEVEL mC: FULL DRESS w/ FACE SHIELD				MAN DAYS	MAT'L.\$'s	PPE LEVEL
LT.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIE	PR	\$4.46	3	0	\$0	- mC
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	0	\$0	umCi
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	0	\$0	mC.
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	0	\$0	, ⇒ mC ∰
SUB-TOTAL		\$5.98	3		50	
design of the control				\$/MD =	\$0.00	

			QTY. PER	NO. OF		
SUBCONTRACTOR REQUIRED PURCHASES			WKR.	WORKERS	MAT'L.\$'s	PPE LEVEL
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	\$12.70	2	8	\$203	D/C/B
APR W/HALF FACE MASK - (1) PER WORKER	EA	\$22.30	6	0	- \$0	, C
APR w/FULL FACE MASK - (1) PER WORKER	EA	\$174.00	6	. 0	\$0	
SCBA	EA	\$1,894.00	2	0	\$0	B
COOL VESTS	EA	\$137.50	6	0	\$0	C/B
THERMO STRIPS	EA	\$50.00	6	0	\$0	C/B
SUB-TOTAL					\$200	

TOTAL PPE's =

MAT'L.\$'s \$200

(FORWARD TO PAGE 2 OF 2)

OTHER PPE'S SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. COSTS OF FD FERNALD SUPPLIED PPE'S, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCURRED BY FD FERNALD AND COSTS ARE NOT INCLUDED AS PART OF PROJECT COSTS AT THIS TIME.

APPENDIX "C"

PROJECT:

OSDF BASELINE BORROW AREA CCPL2 FY09

ESTIMATE NO. C2-2001-05-007-29

CLIENT: WBS NO .: DOE 1.1.C.D

17-May-01 DATE:

ESTIMATOR: RIS

LOCATION: FERNALD

TASK NO.: CCPL2

-MEDICAL MONITORING --

MEDICAL - PHYSICAL and IN-V	IVO MO	NITORING	- LOST	WORKER	TIME for RAD	II WORKERS (DNL
DESCRIPTION	QTY	HRS	WKR	TOTAL	AVG. LABOR	TOTAL	
PHYSICAL (3hrs), IN-VIVO (1hr)				HOURS	RATE	LABOR \$	
BASELINE PHYSICALS	1	4	0	0	\$26.73	\$0	
ANNUAL PHYSICALS	0	4	0	0	\$26.73	\$0	
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	0	0	\$26.73	\$0	
SUB-TOTAL						\$0	

RADIATION IN-VITE	RO SURVEILLAI	NCE - LOS	T WOF	KER TIME	for RAD II WO	RKERS ONL
DESCRIPTION	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR \$
BI-MONTHLY BIOASSAY	6	1	0	0	\$26.73	\$0
			1			
SUB-TOTAL						\$0

RANDOM DRUG TESTING

 ,,	WILD CILL DI	100 12	.011110			
	TESTS	HRS	TOTAL HOURS	AVG. RATE	LABOR \$'s	
	0	2	0	\$26.73	\$0	
NO. OF	TESTING	AVG, NO.	CHANCE/	NO. OF WKRS.	CHANCES	CONSTR
WKRS.	DAYS	OF TESTS	DAY	FOR THIS	/DAY FOR TEST	WORKING
TESTED	PER YR.	PER DAY	FOR TEST	ESTIMATE	FOR PROJECT	DAYS
2340	226	10	0.0042735	0	0.0000	135

	LABOR \$'s THRU SAFETY	LABOR \$'s	
WORK DELAYS CAUSED BY MONITORING 0.0%	\$30,200	\$0	
WORK DELAYS CAUSED BY RAD CHECKING 0.0%	\$30,200	LABOR \$'s	
	. TOTAL LABOR	TOTAL MAT'L.	GRAND TOTAL
TOTAL HEALTH PHYSICS	\$0	\$200	\$200

(FORWARD TO ESTIMATE SUMMARY SHEET)

PROJECT: OSDF BASELINE BOI ESTIMATE NC C2-2001-05-007-24 CLIENT: DOE WBS NO.: 1.1.C.D	Q	RROW AREA CCPL2 FY04	CPL2 FY04	EFFICIEN	SITE SPECIFIC CY/MULTIPLIER	SITE SPECIFIC EFFICIENCY / MULTIPLIER ANALYSIS	LYSIS				DATE: 17-h ESTIMATOR: RIS LOCATION: FER TASK NO.: CCF	17-May-01 RIS FERNALD CCPL2
PERCENT OF INFLUENCE	FLUENCE O	E ON CHART MANHOURS	ANHOURS					·				
	40%	%09	%09	%02	%08	%06	100%	105%	110%	% OF NFLUENCE	WT'D VALUE	PROD. RESULT
CRAFT SKILL (NOTE 1)	Poor			FAIR			STD	V.GOOD =	EXCELLEN	%0.06	12.0%	0.108
CRAFT AVAIL.(NOTE 1)		POOR		FAIR			STD	·	-	100.0%	8.0%	0.08
CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			80.0%	20.0%	0.16
PLANT ELEVATION		OVER 10,000FT			5,000° TO 10,000 FT		UNDER 5,000 FT			100.0%	2.0%	0.05
WORK SPACE		II TIBI E CUIETO	6	200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	0.1
WORK WEFK	MOL					6-10s	5-10s per Means R010-110	0-110		85.0%	15.0%	0.1275
60 HOUR WORK WEEK	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	IIIIIIIIIIIIIII IIIIIIIIIIIIIIIIIIIIII		OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS				%0.0	%0.0	0
60 HOUR WORK WEEK		Hannanan Hannanan	OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS					0.0%	%0.0	0
SHIFTWORK 2ND SHIFT 3RD SHIFT			3RD SHIFT		2ND SHIFT		OR ONE SHIFT ONLY			100.0%	3.0%	0.03
PROJECT SIZE					400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		105.0%	4.0%	0.042
PLANT TYPE				REVAMP I	REVAMP & NEW	NEW IN EXIST PLT	GRASS ROOTS			95.0%	8.0%	0.076
AREA/UNION INFLUENCE	STRONG		MILD		SOME		NONE	·		80.0%	10.0%	0.08
NOTES		<u> </u>								I	100.0%	90.4%
1. TURNOVER HAS BEEN CONSID	CONSIDERED	e		_	EFFICIENCY		(AS A % OFF CHART MANHOURS)	T MANHOUR	(S			90.4%
2. FOR EXTERIOR WORK ONLY	ONLY				MULTIPLIE	R - (TO BE	MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S	CHART M.H.	S TO OBT	AIN SITE M.	1.5)	1.11
	.											

	·,		

EFFICIENCY FACTORS

PROJECT:

OSDF BASELINE BORROW AREA CCPL2 FY04

ESTIMATE NO. C2-2001-05-007-24

CLIENT: WBS NO.: DOE 1.1.C.D FLUOR FERNALD

DATE:

17-May-01

ESTIMATOR: RIS

LOCATION: FERNALD

TASK NO .: CCPL2

EXAMPLE:

STANDARD CHART MANHOURS =

NET 100

EFFICIENCY FACTORS:

SITE SPECIFIC (SEE APPENDIX A)
S/T = BASE UNIT MANHOURS

11.0 111

OVERTIME PRODUCTIVITY FACTOR

0.00% 0

(SEE DETAIL WORKSHEET BACK-UP)

111

 TASK SPECIFIC (confined space, high elevation, congestion, etc.) 0.0% _____0

* PPE SPECIFIC (Based on current data and estimating knowledge)

				PPE LE	VEL			•		
		D	Mod.	'D'	Mod.	"C"	C		C+	•
PRODUCTIVITY HOURS		MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's
(AS A %) / ADD MH's	5.00%	6	27,00%	30	64.00%	· 71	72.00%	80	96.00%	10
(AS A MULTIPLIER)/TOTAL HR\$	1.05	116.6	1.27	141	1.64	182	1.72	190.9	1.96	217.
TOTAL MULTIPLIER WISITE PROD.	1.1655		1.4097		1.8204		1.9092		2.1756	
NOTE: Use the Def		•								
in a contaminated area if the Safety Level cannot be determined.										
(SEE FD FERNALD ESTIMATING SERVICES REFERENCE MANUAL IM-6006 8.10)										
(SEE FU FERNALU EST	ima i ing ser 	VICES REFERENC	E MANUAL III I	1-6006 8.70) 						
				,						
Total hours worked	in a specifi	ic PPF level divi	l ded by 10 b	our working	.					
days = (PPE) ManDa	•		•	7						
(SEE APPENDIX C										
,=======										
	12.0	Man Days	14.0	Man Days	18.0	Man Days	19.0	Man Days	22.0	Man Days
9										

THESE EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY THROUGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL, TO OBTAIN A MORE ACCURATE ACCOUNT OF OVERALL EFFICIENCY IMPACT DUE TO PPE REQUIREMENTS IN HANDLING CONTAMINATED AND HAZARDOUS WASTE.

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT:

OSDF BASELINE BORROW AREA CCPL2 FY04

ESTIMATE NO. C2-2001-05-007-24

CLIENT: WBS NO.: DOE

1.1.C.D

DATE:

17-May-01

ESTIMATOR:

RIS FERNALD

LOCATION: TASK NO.:

CCPL2

PPE MULTIPLIER DEVELOPEMENT

	D	mD	mC	С	C+
STANDARD	7	7	7	7	7
WORKER-BUDDY	o	o	0	o	0
SUPPORT TEAM	o	0	0	0	0
TOTAL CREW	7	. 7	. 7	7	7
	1.00	1.00	1.00	1.00	1.00
ACTOR	0.95	0.79	0.71	0.71	0.68
Y FACTOR	1	1	0.86	0.82	0.75
		· .			
	0.95	0.79	0.611	0.582	0.51
IPLIER	1.05	1.27	1.64	1.72	1.96
	WORKER-BUDDY SUPPORT TEAM TOTAL CREW ACTOR Y FACTOR	STANDARD 7 WORKER-BUDDY 0 SUPPORT TEAM 0 TOTAL CREW 7 1.00 ACTOR 0.95 Y FACTOR 1 0 0.95 0 0.95	STANDARD 7 7 WORKER-BUDDY 0 0 SUPPORT TEAM 0 0 TOTAL CREW 7 7 1.00 1.00 ACTOR 0.95 0.79 Y FACTOR 1 1 0 0.95 0.79	STANDARD 7 7 7 WORKER-BUDDY 0 0 0 SUPPORT TEAM 0 0 0 TOTAL CREW 7 7 7 1.00 1.00 1.00 1.00 ACTOR 0.95 0.79 0.71 Y FACTOR 1 1 0.86 0 0.95 0.79 0.611	STANDARD 7 7 7 7 WORKER-BUDDY 0 0 0 0 0 SUPPORT TEAM 0 0 0 0 0 0 TOTAL CREW 7

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Seig. Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C. The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

·		·		•		
AVAILABLE WORK TIME FACTOR		D	mD	mC	С	C+
TOTAL WORK MINUTES per [5 - 10's		600	600	600	600	600
ADDITN'LSITE SAFETY MEETINGS NOT INCLD. IN BAS	QUANTITY	1	1	1	1	1
	MINUTES	25	25	25	25	25
TOTAL		25	25	25	25	25
PPE DON & DOFFING .	QUANTITY	0	0	3	3	3
(ADJUST LEVEL D per WORK PLAN)	MINUTES	O	0	15	15	20
TOTAL		·	0	45	45	60
WORK BREAKS	QUANTITY	N/A	2	2	2	2
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	15
TOTAL			30	30	30	30
MOBILIZATION - ROUND TRIPS	QUANTITY	N/A	4	4	4	4
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	15
TOTAL .			60	60	60	60
COOLDOWNS PER DAY	QUANTITY	2	3	4	4	4
** (2 OUT OF 8 MONTHS) 25.00%	MINUTES	10	. 12	15	15	15
TOTAL		5	9	15	15	15
AIR TANK REPLACEMENT	QUANTITY	N/A	N/A	N/A	N/A	N/A
	MINUTES	N/A	N/A	N/A	N/A	N/A
TOTAL						
AVAILABLE WORK TIME		570	476	425	425	410
AVAILABLE WORK TIME FACTOR		0.95	0.79	0.71	0.71	0.68

NOTE: Adjust 'Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's. Any other circumstances, over-ride the minutes per day.

^{**} Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances. Changed to July & August over an 8 mth period.

ACTIVITY DURATIONS FLUOR FERNALD

PROJECT:

OSDF BASELINE BORROW AREA CCPL2 FY04

ESTIMATE NO. C2-2001-05-007-24

CLIENT: WBS NO.: DOE

1.1.C.D

DATE:

17-May-01

12.7%

ESTIMATOR: RIS

LOCATION: FERNALD

TASK NO.: CCPL2

	EST.	START	MID	COMPL.		
ACTIVITY	DATE	DATE	POINT	DATE	ACTIVITY	DURATION
						Each Year
FY04 Wise	13-May-01	05/1/2003	17-Aug-03	12/3/2003	7.1	MONTHS
FY04		15-Mar-04	07-Jul-04	29-Oct-04	7.5	MONTHS
Interim Rstrn FY05		01-Nov-04	30-Nov-04	30-Dec-04	1.9	MONTHS
Rest of FY 05		15-Mar-05	08-Jul-05	31-Oct-05	7.6	MONTHS
Interim Rstrn FY06		01-Nov-05	30-Nov-05	. 30-Dec-05	1.9	MONTHS
Rest of FY 06		15-Mar-06	09-Jul-06	03-Nov-06	7.7	MONTHS
Interim Rstrn FY07		01-Nov-06	30-Nov-06	29-Dec-06	1.9	MONTHS
Rest of FY 07		15-Mar-07	08-Jul-07	31-Oct-07	7.6	MONTHS
Interim Rstrn FY08		01-Nov-07	01-Dec-07	31-Dec-07	2.0	MONTHS
Rest of FY 08		17-Mar-08	09-Jul-08	31-Oct-08	7.5	MONTHS
Interim Rstm FY09		15-Oct-08	14-Nov-08	15-Dec-08	2.0	MONTHS
Rest of FY 09		16-Mar-09	07-Apr-09	29-Apr-09	1.4	MONTHS
				10000000000000000000000000000000000000		
TOTAL					56.1	MONTHS
					56 N	

 s per edule
149
252
39
232
39
236
38
200

161 40

1554

	DATE of EST. to	MID-POINT
	ACTIVITY DURAT	TION
a.	27.2	MONTHS
b.	0	MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS		٠			. 0	MONTHS

DATE of EST. t	
0	MONTHS

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

CCPL3 OSDF PLACEMENT

Page 1 of 1									į				09/07/2001 10:56 AM
PBS:	OHFN03				Fluor F	Fluor Fernald, Inc.	d, Inc.					DATE:	05-Sep-01
WBS: 1.1.C.D CTRL ACCT: CCPL CHARGE NO: CCPL3 COMMENT NO F03-031	1.1.C.D CCPL CCPL3 F03-031				ESTIMATE FOR ACTIV (1 FTE E	ESTIMATE SUPPORT WORKSHEET FOR ACTIVITY BASED ESTIMATING (1 FTE EQUALS 1747 HOURS)	KSHEET IMATING IURS)					PROJECT MGR: JD Chiou CAM: JD Chiou PREPARED BY: W. F. Fick PROME CAN SERVEN STATES OF THE PROPERTY OF THE PRO	R: JD Chiou JD Chiou Y: W. F. Fick
Resource: F Res Dept: 9	FIELDSUB 948	FIELD SUBS Overtime:	Class:		EOC: S	SUBCONTRACTORS	JRS					TISCAL TEAK: ZUG4-ZUG	
: :		Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10		
Yr Units: Cum Units: Yr Total Cost:		0:0	0:00	0.00	2,864,840.0 2,864,840.0	3,470,640.0 6,335,480.0	7,377,790.0	5,962,930.0 19,676,200.0	5,670,340.0 25,346,540.0	2,147,160.0 27,493,700.0	0.0 27,493,700.0		
Cum Total Cost:		0	0	0	3,106,235	6,974,683	15,436,600	22,474,086	29,360,329	32,043,529	32,043,529		
GRAND TOTALS:	**												
Yr Total Cost: Cum Total Cost:		Oct 00- Sep 01 0	Oct 01- Sep 02 0	Oct 02- Sep 03 0	Oct 03- Sep 04 3,106,235 3,106,235	Oct 04- Sep 05 3,868,447 6,974,683	Oct 05- Sep 06 8,461,917 15,436,600	Oct 06- Sep 07 7,037,486 22,474,086	Oct 07- Sep 08 6,886,243 29,360,329	Oct 08- Sep 09 2,683,200 32,043,529	Oct 09- Sep 10 0 32,043,529		
CAM		14-96					CONTROL TEAM	EAM			1		

•				
			-	

PROJECTS CONTROLS ESTIMATING SERVICES

May 17, 2001

PROJECT DESCRIPTION: Baseline OSDF - Cell Placement

WBS NUMBER: 1.1.C.D

PROJECT ENGINEER: W. Zebick

ESTIMATOR: T. Wagner

ESTIMATE NUMBER: C2-01-05-06 - (34, 35, 36, 37, 38, 39)

BASIS OF ESTIMATE

Verbal Scope	\boxtimes	P & ID's		Work Plan	
Drawings		Equipment List		Site Walk	
Sketches		Specifications		Eng. Mtg.	\square
Flow Diagrams		Written Scope	$-\boxtimes$	Estimate	

TYPE OF ESTIMATE:

Change Proposal		Government	
Plan/Feasibility		Conceptual	
Construction		Title I Design	
Budget	\boxtimes	Independent.	

BASIS OF ESTIMATE:

These estimates were prepared for the 2001 Baseline cost of the OSDF Cell Placement, Charge Number CCPL3.

Work encompasses: submittals; off hour dust control; site prep.; OMTA operations (including shutdown); removal of impacted portion of haul road; placement of 12" protective layer; placement of 24" select layer; placement of 36" select layer; placement of CAT 1, CAT 2 (above & below grade), CAT 3 palletized transits, CAT 4 (above & below grade), CAT 5 friable asbestos & thorium/soil debris.

Each estimate indicates the work to be preformed for each year involved.

C2-01-05-06-34 for FY04

C2-01-05-06-35 for FY05

C2-01-05-06-36 for FY06

C2-01-05-06-37 for FY07

C2-01-05-06-38 for FY08

C2-01-05-06-39 for FY09

PROJECTS CONTROLS ESTIMATING SERVICES

May 17, 2001

PR	O.	JECT	DESCRIP	TION:	Baseline	OSDF -	Cell P	lacement
----	----	-------------	---------	-------	----------	--------	--------	----------

WBS NUMBER: 1.1.C.D

PROJECT ENGINEER: W. Zebick

ESTIMATOR: T. Wagner

ESTIMATE NUMBER: C2-01-05-06 - (34, 35, 36, 37, 38, 39)

ESTIMATE ASSUMPTIONS

EXECUTION:
This project is to be performed on a 50-hour week, 10 hours a day.
This project is to be performed on a 40-hour week, 8 hours a day.
Premium time allowed.
WAGE RATES:
Wage rates within this estimate are based on Project Labor Agreement rates, effective October
2000 and are considered FY01 dollars for estimating.
effective January 30, 2001 and are considered FY01 dollars for estimating.
ENGINEERING:
⊠ N/A
Engineering dollars provided by the Project Engineer.
Engineering dollars have been factored in at the standard 12% of the total direct and indirect
field costs as per request of Project Engineer.
CONSTRUCTION MANAGEMENT:
⊠ N/A
Construction Management dollars provided by the Project Engineer.
Construction Management dollars have been factored in at the standard 30% of the total direct
and indirect field costs as per request of Project Engineer.
and indirect field costs as per request or rivigest Engineer.
PROJECT MANAGEMENT:
N/A
Project Management dollars provided by the Project Engineer.
Project Management dollars provided by the Project Engineer. Project Management dollars have been factored in at the standard 30% of the total direct and
indirect field costs as per request of Project Engineer.
WASTE PROGRAM MANAGEMENT:
WASTE PROGRAM MANAGEMENT:
Waste Program Management dollars provided by the Project Engineer.
N. Maria and C. Carriera and C

PROJECTS CONTROLS ESTIMATING SERVICES

May 17, 2001

PROJECT DESCRIPTION: Baseline OSDF - Cell Placement

WBS NUMBER: 1.1.C.D

PROJECT ENGINEER: W. Zebick

ESTIMATOR: T. Wagner

ESTIMATE NUMBER: C2-01-05-06 - (34, 35, 36, 37, 38, 39)

PRODUCTIVITY:

A productivity factor has been developed and applied to the unit man-hours derived from MEANS, Richardson, NECA, and or any other published estimating source. See attachment APPENDIX "A" and APPENDIX "B".

ESCALATION:

Escalation costs are excluded from the target estimate. The escalation costs are calculated within the Micro-Frame computer system according to the plan for rebaselining.

UNIT RATES:

Unit man-hours, equipment and material dollars are based on Richardson, MEANS, NECA, and or other published rates.

G & A (HO EXPENSE):

G & A are excluded from the target estimate. The G & A cost are calculated within the Micro-Frame computer system according to the plan for rebaselining.

HEALTH PHYSICS:

See attached APPENDIX "C".

RISK BUDGET:

N/A

CONTINGENCY:

N/A

PROJECTS CONTROLS ESTIMATING SERVICES

May 17, 2001

PROJECT DESCRIPTION: Baseline OSDF - Cell Placement

WBS NUMBER: 1.1.C.D

PROJECT ENGINEER: W. Zebick

ESTIMATOR: T. Wagner

ESTIMATE NUMBER: C2-01-05-06 - (34, 35, 36, 37, 38, 39)

ESTIMATE INCLUSIONS & EXCLUSIONS

INCLUSIONS:

- Premobilization & Mobilization.
- Demobilization.
- Labor hours.
- Material dollars.
- Equipment dollars for operating expenses @ 85% efficiency, and rental on a monthly basis.
- Premium time.
- Labor resources, material dollars, construction equipment resources, duration, and quantities were provided by the project team.

EXCLUSIONS:

- Permits and fees.
- FF G & A (Home Office Expense).
- Construction Management.
- Any second tier subcontract costs.
- Project Management dollars.
- Waste Management dollars.
- Subcontractor's support and supervision.
- Subcontractor's training.

ESTIMATE SUMMARY SHEET

PROJECT:

OSDF PLACEMENT FY04

CLIENT:

ESTIMATE #: C2-2001-05-006 034

Fluor Fernald, Inc.

DATE:

17-May-01 ESTIMATOR: T.WAGNER

LOCATION: FERNALD

WBS#: 1.1.C.D	IUO:		uice, ii	101		TASK NO.:	CCPL3
ITEM DESCRIPTION	M/H	RATE	LABOR\$	S/C \$	MAT'L\$	EQUIP. \$	TOTAL \$
Post Award Document (Bonds & Insurance)				\$36,100			\$36,100
Submittals	1,600	1	\$80,210				\$80,210
Overhead & Profit				\$463,427			\$463,427
Off Hour Dust Control			į	\$20,000			\$20,000
Control & Management (separate estimate)							•
Site Prep	5,520		\$161,580	\$107,337	\$6,230	\$145,468	\$420,615
OMTA Operations (including shutdown)	9,369		\$250,750	\$5,075		\$314,678	\$570,503
Removal of Impacted portion Haul Rd	141		\$3,770	, , , , , ,		\$5,800	\$9,570
Placement of 12" Protective Layer	1	.				40,000	
Placement of 24" Select Layer	1		1	ĺ			
Placement of 36" Select Layer	1		1	.			
Placement of CAT #1 1Q	1 1						
Placement of CAT #1 3&4Q	4,017		\$108,254	ļ		\$48,429	\$156,683
Placement of CAT #2 & #4 Above Grade 1Q	1 7,0,,		V 100,201	. 1		Q-10,-120	Ψ.00,000
Placement of CAT #2 & #4 Above Grade 1&4Q	. 444		\$10,980	I		\$9,571	\$20,551
Placement of CAT #3 Palletized Transits 1Q	1	1	\$10,550	.]		φ3,57 (\$20,33
Placement of CAT #3 Palletized Transits 1&4Q			1				
Placement of CAT #5 Friable Asbestos 1Q	1		1			·	
	1 1		l	1			
Placement of CAT #5 Friable Asbestos 3&4Q	1	1	1	ļ			
Placement of CAT #2 @ & Below Grade 1Q	6 400		£460 640	l		6404 070	e224 000
Placement of CAT #2 @ & Below Grade 3&4Q	6,199		\$169,649			\$161,373	\$331,022
Placement of CAT #5 Thorium/Soil Debris 1Q				·			
Placement of CAT #5 Thorium/Soil Debris 3&4Q	1 1	j					
		,		1			
DIRECTFIELD COSTS TOTAL	27,290	\$28.77	\$785,192	\$631,939	\$6,230	\$685,319	\$2,108,68
PM & GEN SUPER, SUP. ENG, QA, & SAFETY	4,288	\$33.69	\$144,480				\$144,48
·	1						
]	
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		1					
•]]						
	1						
HEALTH PHYSICS	167.		\$4,800		\$26,100		\$30,90
	1	-	1			1	
	1						
PAYROLL BURDENS & BENEFITS	1	ĺ	\$532,600	Ì			\$532,60
	1 1						
							ļ
SALES TAX					\$1,900	\$41,100	\$43,00
INDIRECT FIETO COSTS TOTAL	4,455		\$681,880		\$28,000		
DIRECT&INDIRECT FIELD COSTS TOTAL		\$46.21	\$1,467,072	\$631,939	\$34,230		
The second secon							
DARGERIES IIIMA EXPERIENCE			YOUNDO	EEARS)			\$2,859,66
		- Company of the state of the s		and the second second second second	we are with the second	THE PROPERTY OF THE PROPERTY OF THE PARTY OF	1

ESTI	MATE SUMN	IARY SHE	EET			
PROJECT: OSDF PLACEMENT FY04					DATE:	17-May-01
ESTIMATE NO.:C2-2001-05-006 034	FACTOR	RS -			ESTIMATOR:	T.WAGNER
CLIENT: DOE WBS NO.: 1.1.C.D					LOCATION: TASK NO.:	FERNALD CCPL3
FIXED PRICE S	LABOR \$	S/C \$	MATL. \$	EQUIP. \$	PPE\$	TOTAL \$
DFC DOLLARS	\$785,192	\$631,939	\$6,230	\$685,319	\$26,100	\$2,134,781
IFC COST FACTOR	1.8684		1.0000	1.0000	-	
	1.0000	1.0000	1.0000	1.0000	1.0000	
SALES TAX	•		1.0600	1.0600	1.0600	
		のないのである。			Maria de Maria	4 2 6 2 2
DIRECT FIELD COST FACTOR =	1.8684	1.0000	1.0600	1.0600	1.0600	
		は、これは			DISEASE SEE	
BASE ESTIMATE \$'S	\$1,467,072	\$631,939	\$6,604	\$726,439	\$27,666	\$2,859,720
			22 m. 3 m. 22 m	-		
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
and the second to the second s	رود در در در در در در در در در در در در در	Transcription Standard	45.0			End a state of
TARGET ESTIMATE FACTOR	1.8684	1.0000	1.0600	1.0600	1.0600	
		Email ASSO				
FPS TARGET ESTIMATE (FY01 \$)	\$1,467,072			\$726,439	\$27,666	\$2,859,720

NOTE:

F THERE ARE NO DFC EQUIP, \$, ENTER THE IFC EQUIP, \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G82.

ESTIMATE SUMMARY SHEET

PROJECT: OSDF PLACEMENT FY04

ESTIMATE NO.: C2-2001-05-006 034

DIRECT FIELD COST

DATE:

17-May-01 ESTIMATOR: T.WAGNER

CLIENT:		/FACTO				LOCATION:	FERNALD
WBS NO.:	1.1.C.D	/				TASK NO.:	CCPL3
PAY ITEM NO.	DESCRIPTION	LABOR \$	S/C \$	MAT'L: \$	EQUIP. \$	PPE\$	TOTAL \$
	·	(ASSIGN OR		E MAT'L.\$'S)>	>	30900	
·1	Post Award Document (Bonds & Insura		36100 \$36,100				\$36,10
			450,100	,			φ30, 1
2	Submittals	80210					
	·	\$149,870					\$149,8
3	Overhead & Profit		463427		٠		
	: *		\$463,430				\$463,4
4	Off Hour Dust Control		20000				
*	On Hour Dust Control		\$20,000				\$20,0
	•						
6	Site Prep	161580	107337	6230	145468		
		\$301,900	\$107,340	\$6,600	\$154,200	\$7,510	\$577,5
7	OMTA Operations (including shutdown)	250750	5075		314678	10,990.59	
		\$468,510	\$5,080		\$333,560	\$11,650	\$818,8
. 8	Removal of Impacted portion Haul Rd	3770			5800	165.24	
	Nemoval of Impacted portion Hadi Ru	\$7,040	-		\$6,150	1	\$13,3
					-		
9	Placement of 12" Protective Layer			·		-	
10	Placement of 24" Select Layer						
					·		
11	Placement of 36" Select Layer	1					
	nacement of 50 Gelect Layer					_	
						'	
12	Placement of CAT #1 1Q					•	
		Ì					
12	Placement of CAT #1 3&4Q	108253.8254			48429.34293	1	
		\$202,260	1		\$51,340	\$5,030	\$258,6
13	Placement of CAT #2 & #4 Above Grad			·		_	ľ
					1	·	
40	Diagrams of 04740 0 44 44 55 0 0 0 d	40070 75700			0570 05000	404.05	
13	Placement of CAT #2 & #4 Above Grad	10979.75709 \$20,510	i .		9570.850202 \$10,150	E .	\$31,
•		V			,,		
14	Placement of CAT #3 Palletized Transi		l .			-	
14	Placement of CAT #3 Palletized Transi					-	
15	Placement of CAT #5 Friable Asbestos						
15	Placement of CAT #5 Friable Asbestos					-	
16	Placement of CAT #2 @ & Below G					-	
16	Placement of CAT #2 @ & Below G	169648.8889			161373.333	7,435.86	
•		\$316,980	1		\$171,06		
47	Discount of CAT #5 The stars (Call Date						
17	Placement of CAT #5 Thorium/Soil Deb					-	
17	Placement of CAT #5 Thorium/Soil Deb					-	
	CT FIELD COSTS W/FACTORS	(FY01 DOLL	APSI		1	<u> </u>	\$2,864

Cost Allocation for Bas	eline Entry
1 Post Award	\$36,100
2 Submittal	\$149,870
Subtotal	\$185,970
	0400 400
3 Overhead & Profit	\$463,430
4 Off Hour Dust Control	\$20,000
6 Site Prep	\$577,550
Subtotal	\$597,550
7 OMTA Operations (including shutdown)	\$818,800
8 Removal of Impacted portion Haul Rd	\$13,370
Subtotal	\$832,170
9 Placement of 12" Protective Layer	
10 Placement of 24" Select Layer	
11 Placement of 36" Select Layer	
12 thru 17 Quarter 1	
12 thru 17 Quarter 3 & 4	\$785,720
Grand Total	\$2,864,840
Verify old total	\$2,864,840
Match	100.00%

PROJECT: OSDF PLACEMENT FY04 ESTIMATE NO.: C2-2001-05-006 034 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

TOTAL		\$36,100	\$80,210	\$463,427	\$20,000		\$420,815	\$570,503	\$9,570					\$156,683	•	•	•		
EQUIP							\$145,468	\$314,678	\$5,800					\$48,429	\$48,429	\$48,429	\$48,429	\$48,429	\$48,429 \$9,571
MATL							\$6,230	/											
S/C		\$36,100		\$463,427	\$20,000		\$107,337	\$5,075				*** · · ·				1			
· LABOR			\$80,210				\$161,580	\$250,750	\$3,770					\$108,254	\$108,254	\$108,254	\$108,254	\$108,254	\$108,254 \$10,980 \$169,649
	Equip																		
COST / UNIT	Mati																		
COST	s/c																		
	Labor																		
S	Rate																<u>-</u>		
MAN-HOURS	Total		1,600				5,520	696,6	141	_				4,017	4,017			· · · · · · · · · · · · · · · · · · ·	
	S			·															
UNIT											· _	·						···	
ΩTY																			
SUMMARY		Post Award Document (Bonds & Insurance)	Submittals	Overhead & Profit	Off Hour Dust Control	Control & Management (separate estimate)	Site Prep	OMTA Operations (including shutdown)	Removal of Impacted portion Haul Rd	Placement of 12" Protective Layer		Placement of 24" Select Layer	Placement of 24" Select Layer	Placement of 24" Select Layer Placement of 36" Select Layer Placement of CAT #1 1Q Placement of CAT #1 384Q	Placement of 24" Select Layer Placement of 36" Select Layer Placement of CAT #1 1Q Placement of CAT #1 3&4Q Placement of CAT #2 & #4 Above Grade 1Q Placement of CAT #2 & #4 Above Grade 1Q	Placement of 24" Select Layer Placement of 36" Select Layer Placement of CAT #1 1Q Placement of CAT #1 3&4Q Placement of CAT #2 & #4 Above Grade 1Q Placement of CAT #3 Palletized Transits 1Q Placement of CAT #3 Palletized Transits 1Q	Placement of 24" Select Layer Placement of 36" Select Layer Placement of CAT #1 1Q Placement of CAT #1 3&4Q Placement of CAT #2 & #4 Above Grade 1Q Placement of CAT #3 Pallettzed Transits 1Q Placement of CAT #3 Pallettzed Transits 3&4Q Placement of CAT #5 Friable Asbestos 1Q Placement of CAT #5 Friable Asbestos 1Q	Placement of 24" Select Layer Placement of 36" Select Layer Placement of CAT #1 1Q Placement of CAT #1 3&4Q Placement of CAT #2 & #4 Above Grade 1Q Placement of CAT #2 & #4 Above Grade 3&4Q Placement of CAT #3 Palletized Transits 1Q Placement of CAT #3 Palletized Transits 3&4Q Placement of CAT #5 Friable Asbestos 1Q Placement of CAT #5 Friable Asbestos 3&4Q Placement of CAT #2  @ & Below Grade 10	Placement of 24" Select Layer Placement of 36" Select Layer Placement of CAT #1 10 Placement of CAT #1 3&40 Placement of CAT #2 & #4 Above Grade 10 Placement of CAT #2 & #4 Above Grade 3&40 Placement of CAT #3 Palletized Transits 10 Placement of CAT #3 Palletized Transits 10 Placement of CAT #5 Friable Asbestos 10 Placement of CAT #5 Friable Asbestos 3&40 Placement of CAT #5 Friable Asbestos 3&40 Placement of CAT #5 Friable Asbestos 10 Placement of CAT #5 Friable Asbestos 10 Placement of CAT #5 Friable Asbestos 10 Placement of CAT #5 Friable Asbestos 10
ITEM	Š	T	2	<u>ი</u>	4	. v	ဖ	^	<u> </u>	6		9							

OSDF PLACEMENT FY04 PROJECT:

ESTIMATE NO.: C2-2001-05-006 034 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

AL				2000	\$30,080 \$50,130	80,210	000	\$20,000	
TOTAL			-		₩ ₩	\$		8	
EQUIP									
MAT'L									
S/C							000	\$20,000	
LABOR				,	\$30,080 \$50,130	\$80,210			
	Equip								
TINC	Maťi								
COSTAUNIT	S/C							20,000	
	Labor								
S	Rate			B	50.13 50.13	1 1			·
N-HOUF	t Total R				1000	1600	.		
Ř	Cnit				50.0 10.0				
LIND			S	•	6 6			ls	
ΔT				1	100			1	
-		Post Award Documents			Plans allowance Technical submittals allowance		Off Hour Dust Control	Off Hour Dust Control allowance	
ITEM	Š			7			4		w

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY04 ESTIMATE NO.: C2-2001-05-006 034 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

			:	2011			-								
			ľ	Unit	Total	Rate	Labor	S/C	Maťi	Equip					
_ ~	6 SITE PREP					L	_								
	Dust Control			• (Rate + 20%	÷ 20%							678 400	¢75 400
	CAT 613 Water wagon (2ea)	9	e E	7						3,770				96.2,400	41.0,100 664.018
	CAT 613 Water wagon (2ea)	2,559	È	7						12.55				\$04,218	\$04,410
	Operator (9 months)	1,935	È	=	2728		φ				\$80,440				900,440
$\overline{}$	Operator (5 months)	1,075	È	-	1516	29.48	œ				\$44,690				\$44°090
	Site Prep														
	Mobilization of equipment	9	Ė	9	82	29.48	œ			100.00	\$2,490			\$1,000	\$3,490
_	Office trailer purchase 8x12 w/hvac	-	8					5,037.00				\$5,037			\$5,037
•	Silt fence	2,000	<u>_</u>	·					0.30				\$600		\$600
	Laborer	4	Ĕ	=	26	24.71	-				\$1,390				\$1,390
\sim	Operator	40	Ė	-	26		დ								\$1,660
	CAT 416 backhoe	40	Ė	_						25.17				\$1,010	\$1,010
,	Straw bales	312	ea						2.50				\$780		\$780
	Laborer	15	녿	7	42		<u>-</u>				\$1,050				\$1,050
_	Operator	15	Ė	_	21	29.48	æ				\$620				\$620
\sim	CAT 416 backhoe	15	Ĕ	+						25.17				\$380	\$380
-	Install check dams/SIDs														
밑	Laborer	20	È	7	26		<u>.</u>				\$1,390				\$1,390
_	Operator	20	È	_	28		œ				\$830				\$830
	Teamster	20	È	=	78	24.94	4				00/ \$			000	\$7.00
_	CAT 330 TracHoe	20	È	_						99.74				086,14	088,14
	Type D Rip Rap	12	£	=					15.50				\$190		08140
	Haul Truck	20	È	-						73.62				\$1,470	\$1,470
J	Construction/RAD fencing 4' wire w/ p	1,200	*	•				·	2.83				\$3,400		\$3,400
	Laborer	20	Ĕ	7	26	24.71	<u>.</u>				\$1,390				\$1,390
=	nstall const/grid signage	36	e						35.00				\$1,260		\$1,260
U)	Site prep						•								
	Laborer	30	È	N	82	24.71	-				\$2,090		-		\$2,090
v.	Survey														
, 0)	Survey crew	_	<u>s</u>					102,300				\$102,300	•		\$102,300
_	Training	30	Ę	- 49	761	30.00					\$22,840				\$22,840
	Training based on HithPhys Sheet	-		-											
-						_							100 mm		AND DESCRIPTION OF THE PROPERTY.

PROJECT: OSDF PLACEMENT FY04 ESTIMATE NO.: C2-2001-05-006 034 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

TOTAL			\$59,600	\$20,740	\$19,770	\$22,500		\$164.420	\$121,931	\$57,346	\$5,075							\$6,350		\$570,503			\$1,990	\$2,340	\$1,470	\$1,660	\$1,410	00/\$	0/6,84	
EQUIP			\$59,600	\$20,740					\$121,931	\$57,346	•				•					\$314,678			\$1,990	\$2,340	\$1,470			000	008,c\$	
MAT'L		·																												
S/C					•						\$5,075									\$5,075										
LABOR					\$19,770	\$37,710		\$164 420	0.04r, to 1.04									\$6,350		\$250,750						\$1,660	\$1,410	\$700	\$3,770	
	Equip		107.95	37.57					73,62	34.62				,									99.74	116.98	73.62					
UNIT	Maťi																													
COST/UNIT	S/C	-					-	-	-	-	5,075.00														•		•		-	
•	Labor							~~ %														%0								
	Rate					20.59	-	Rate + 20%	78.87	_								30.00				Rate + 20%				29.48	24.94	24.71		
MAN-HOURS	Total				916	1,832		207	5,495									212		9,369					•	56	56	28	141	
~	Chit		-	_	-	~ ~	•	c	7 -		-							rO.					_	-	8	2	7	-		
FINS		·	눝.			ÈÈ			ב ב					ê				E					È			Ĕ		ř		
- ATO		(0wn)	552	552	650	650			1,949	, oco, 1								30					20	20	.8.	20	20	20	_	
OSDF PLACEMENT FY04			period (approx. 3 mo) CAT 973 Track Loader/4way bucket	CAT 330 Excavator/grappler		Laborer (3 mo)			_	ROB Inck (Site Owns)	CAL THES (9 mo) Princhase of office trailer (8x12) FY04	7 B Special for Lighting FY06 & FY07	Lighting double shift	2x5.5mx4		7 B Special for FY04 - FY08	personnel for night shift	Training	Training based on HithPhys Sheet	OMTA Operations (including shutdown)	8 Removal of Impacted portion	of OSDF Haul Rd (2 DAYS X 7)	CAT 330 excavator	CAT D8 dozer	Haul Truck			Laborer	-	
Jad	Leve				<u>۾</u>	_무 도			딭																	Cm	<u>E</u>	<u>و</u>		

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY04 ESTIMATE NO.: C2-2001-05-006 034 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

TOTAL		\$3,480 \$6,230 \$1,830 \$8,710 \$8,310	\$6,970 \$12,450 \$17,420 \$16,630 \$1,390 \$1,660	\$9,750 \$17,440 \$4,880 \$29,100 \$24,390 \$5,820 \$480 \$3,480 \$3,480
EQUIP		\$3,480 \$6,230	\$6,970 \$12,450 \$1,390	\$9,750 \$17,440 \$4,880
MAT'L				\$480
s/c				
LABOR		\$1,830 \$8,710 \$8,310	\$17,420 \$16,630 \$1,660	\$29,100 \$24,390 \$5,820 \$3,480
	Equip	40.98	40.98 73.26	40.98 73.26 40.98 20.48
CNIT	Mat'i			0.30
COST/UNIT	S/C			
	Labor	%0	%0	%0
S	Rate	Rate + 20% 25.91 24.71 29.48	Rate + 20% 24.71 29.48 29.48	Rate + 20% 29.48 24.71 29.48
MAN-HOURS	Total	71 353 282	705 564 56	987 987 197 141
×	Cuit	0.5 2.5 2.0	2.5 2.0 1.0	2.55
TINO		2222	4444	*****
ΛTΩ		85 100 100 100	170 170 200 200 34 40	238 238 119 280 280 1,600 1,600
OSDE PLACEMENT FY04		9 Placeme protection CAT 563 CAT D6 LC Foreman Laborer Operator	10 Placem (20days) (AT 563 CAT 563 CAT D6 Laborer Operator CAT 563 c Operator (22,000 CY 1/222,000 CY 1/2222 CY 1/	Iotal for 1 of 4 Liness 11 Placement of 36" Select CAT 563 CAT 563 compactor (14day) Operator (28day) Caborer (28day) Operator (14day) Silf Fence Laborer (5day) Trencher \$33,000 CY TOTAL FOR 1
ppe	Level		д В С С С С С	무 무 무 무

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY04 ESTIMATE NO.: C2-2001-05-006 034 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

PPE	E OSDF PLACEMENT FY04	- ALL	TIND	W.	MAN-HOURS	S		COSTAUNIT	TINC		LABOR	s/c	MAT'L	EQUIP	TOTAL
Level	·ei			Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
	12								·		-				
	CAT #1								-						
	Placement of Impacted Mat'i					_									
-	2,222 cy/day avg. 10hrs					Rate + 20%	 %0							7	7 7 4
	CAT D8 dozer	9	È					_		116.98				0/1,14	0/1/0
	CAT 563 Compactor	=								40.98	1		-	\$450	0.00
딦	D Foreman	9		0.5	~						\$180				#180 #100
딭	D Laborer	10		2.0	88	24.71					\$700				\$700
밑	D Operator	9		2.2	3	29.48		-			\$910		-	000	01.64
	CAT 330 Trac hoe	က								25.17		,		084	084
윤		9	녿	2.3	32						096\$				\$960
Дш	D Foreman	9		0.5	~			_			\$180				0818
딭		9	È	2.5	35	24.71		-			\$870				2870
	ICX = \$2.48							-			1	-		000	4
	Subtotal for funit				141						13,800			100/19	nnc'ct
	Unit rates				0.0635			-			\$1.71017			\$0.76508	\$2.47525
	Double shift 5 5mo in FY06 & FY07												,		
						Rate + 20%	50%	•		_	•		-		
	Portable light plains	Y Y	Ē	5		_		-		1 275				\$70,100	\$70,100
	10 Lignts x 5.5m	3 6		2			-	0000		<u> </u>		\$24 03E			\$34 03E
	Survey Crew	3/8						3.			400	000'+00			437,030
	Supervisor	378	È	0.	533	37.85					\$20,180				\$20,180
	Safety	378	È	<u>o:</u>	533	30.34					\$16,180				\$16,180
	QA	378	È	0.5	267	28.05		-			\$7,480				\$7,480
	Foreman	378	È	<u>o:</u>	533	25.91					\$13,820				\$13,820
	Operator	378	E	3.0	1,600	29.48					\$47,170				0/1/1/0
	Laborer	378	È	3.0	1,600	24.71					050,854				Occiece
				1	5,068		T	-			\$144.360	\$34.036		\$70,100	\$248,496
	Double shift Total FYU6 & FYU/				200,5		+			1					
					•			-							
1.7	14 ·				4017						\$108,254			\$48,429	\$156,683
	٠.				:						•				
					anger Tanana da	•									
		_													

PROJECT: OSDF PLACEMENT FY04
ESTIMATE NO.: C2-2001-05-006 034
CLIENT: DOE
WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

DATE: 17-May-01
ESTIMATOR: T.WAGNER
LOCATION: FERNALD
TASK NO.: CCPL3

TOTAL			\$1,160	\$160	\$700	\$300	\$590	\$100	0.00		\$4,230	. [\$5.708502			199'02\$	·
EQUIP			\$1,160	\$350 \$150	2	\$300					\$1,970	\$1,026,370	\$2.658570			1/9/83	
MAT'L														:			
s/C																	
LABOR					\$700		\$290	\$100	0/8*		\$2,260	\$1,177,460	\$3.049933			\$10,980	
-	Equip		165.35	116.98	40.98	99.74											
ZNIT	Maťi																
COST/UNIT	S/C						-	-									
	Labor	%															
တ္သ	Rate	r Rate + 20%			24.71			25.91									
MAN-HOURS	Total				28		24	4	32		91	47,566	0.1232			444	
	5				2.0		1.7	0.25	2.5								
- N					4 0												
J.					4 0		<u>~</u>	7	-		·		Ŀ			**********	
OSDE PLACEMENT FY04		13 CAT #2 & #4 ABOVE GRADE			CAT 563 compactor	CAT 330 Track hoe				icx = \$5.71	Subtotal for Imil	Total x's 521 units	unit costs		7 5	3,600 cy	
			CAT 826	CAT D8		_			Labore	H	Subloto	Total x's			ā	3&4Q	
100	2 6				£	<u> </u>	<u>و</u>	Д	딭								

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Fluor Fernald, Inc.

DATE: 17-May-01
ESTIMATOR: T.WAGNER
LOCATION: FERNALD
TASK NO.: CCPL3

PROJECT: OSDF PLACEMENT FY04
ESTIMATE NO.: C2-2001-05-006 034
CLIENT: DOE
WBS NO.: 1.1.C.D

٦	J		\$420 \$350	\$950 \$610 \$520 \$940 \$140
TOTAL			₹	<u> </u>
\dashv				\$950
EQUIP				69 69 9
MATIL				
s/c				
LABOR			\$420 \$350	\$520 \$940 \$140
	Equip			63.28 40.98
COST/UNIT	Mat'l			
COST	s/c			
	ъ			
-	Labor	Rate + 20%	4 -	7.87
- 6 9	Rate	Rate +	14 29.484 14 24.71	24.71 29.48 25.91
MAN-HOURS	Total		4 4	21 32 5
Σ	Cnit		0.0.	1.00 1.50 0.25
TIND			보보	****
ОΤУ		·	5 5	2 2 2 2
SDF PLACEMENT FY04			Place patiets (10nf day) 144tcy MD Operator MD Laborer	Place Fill around & over pallets & grid 1708 cy (1.5day) CAT D6 dozer CAT 563 compactor mD Laborer mD Operator mD Foreman
100	Leve		무무	5 E E

\$3,930 \$161,130 \$27.2917

\$63,960 \$10.8333

\$97,170 \$2,370

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10 3&40

unit costs

Subtotal = 1 grid
Total times 41 Grids

rcx = \$27.29

Fluor Fernald, Inc.

PROJECT: OSDF PLACEMENT FY04 ESTIMATE NO.: C2-2001-05-006 034 CLIENT: DOE WBS NO.: 1.1.C.D

ā	PPE OSDF PLACEMENT FY04	ΩTΛ	LIND	Ň	MAN-HOURS	<u>_</u> (ე.		COST	COSTAUNIT		LABOR	S/C	MAT'L	EQUIP	TOTAL
				Unit	Total	Rate	Labor	S/C	Maťi	Equip					
L	15							-							
	CAT #5														
	Friable Asbestos 334cy					Rate + 20%	50% -								
	Excavate 10 trenches (2hr/trench)					:					000				000
Ε	mD Operator	20	È	0.	28	29.48					\$830				4000
Ε	mD Laborer	20		0.	28	24.71					00/\$				4,000
_	CAT 330 Trakhoe	20								99.74				088,13	91,990
	ISO	20		1.50	42					73.62				\$1,470	\$1,470
	Trencher	20								20.48				\$410	\$410
	Foreman	20	ᆂ	0.25	7	25.91					\$180				\$180
	Placement														
_	Operator	8		_	=	29.48		· · · · ·			\$330				\$330
	Laborer	80		2.00	23	24.71					\$260			Č.	0904
	CAT 416 BkHoe	2								25.17		•		ncs	00%
_	Foreman	80	È	0.25	e	25.91					\$20				0/\$
	Trench				-										
Ξ	mD Operator	80		1.00	Ξ	29.48	_				\$330				\$330
Ε		8	Ė	1.00	=	24.71					\$280				\$280
		80	Ē	0.25	က	25.91					\$20				2/0
	Backfill													00.5	6
	CAT 416 BkHoe	4	Ė							25.17				0014	0014
٤	mD Laborer	4	፰ .	2.00	= 1	24.71					\$280				\$280
E	mD Operator	4		1.25	_	29.48					01.7¢			0076	94.10
	CAT 563 compactor	4	Ė							40.98	(nor*	0014
	Foreman	8		0.25	~	25.91					00%				nc#
	1 CX = \$24 16														,
	Subtotal for 1 arid				88						\$3,890			\$4,180	\$8,070
	Total times 57 grids				10,723		·				\$221,730			\$238,260	\$459,990
	unit costs				0.5632						\$11.64671			\$12.51497	\$24.16168
										٠					
	a !														
	3644														
		ب													

PROJECT: OSDF PLACEMENT FY04 ESTIMATE NO.: C2-2001-05-006 034

CLIENT: DOE

WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

ESTIMATOR: T.WAGNER LOCATION: FERNALD

CCPL3

TASK NO.:

\$580 \$200 \$50 \$350 \$420 \$1,600 1,326,400 \$3.5556 \$331,022 TOTAL \$780 \$646,620 \$1.7333 \$580 \$200 \$161,373 EQUIP MAT'L S/C \$679,780 \$350 \$420 \$1.8222 LABOR \$169,649 116.98 40.98 Equip Mat'i COSTAUNIT 2/2 Labor Rate + 20% 25.91 24.71 29.48 Rate MAN-HOURS 30.0 24839 0.0666 1.8 14.1 14.1 6,199 Total 1.0 0.50 0.25 2 ij QTY UNIT 효료료료 - cy 93,100 cy 16 CAT #2 & #4 At & Below Grade OSDF PLACEMENT FY04 unit costs CAT D8 CAT 563 compactor 1 Grid / shift = 450cy Total times 829 grid icx = \$3.56 Subtotal for 1 grid Placement mD Foreman mD Laborer mD Operator 10 3840 PPE Level

Fluor Fernald, Inc.

PROJECT: OSDF PLACEMENT FY04 ESTIMATE NO.: C2-2001-05-006 034 CLIENT: DOE WBS NO.: 1.1.C.D

Cospr PLACEMBIN Frod OTY UNIT MANH-HOLIRS COSPTUNIT CO	TOTAL							\$210	6470	016	#200 #200	\$4,650			\$300	\$30 \$270	0174	44,100		\$400	\$160	\$40	\$140	64 OEO	94,800		\$12,300	\$246,000	\$19.6800			
Thorium 7 Thorium Soil Debrie Thorium 7 Thorium 1 Thorium 1 Thorium 1 Thorium 1 Thorium 2 Thoriu	EOUIP										8500	\$2.500			\$300		64 500	000,14		\$400	\$160			000 00	92,000		\$6,800	\$136,000	\$10.8800			
CAT #5	MAT	2 11 011																														
AND PLACEMENT FYOM OTY UNIT MANH-HOURS COSTUMIT Equip	S/C																															
1	1 AROR	NOG!C						£240	\$4.10 64.70	07.14	00\$	\$2,150	201120			\$30	\$210	007,14				\$40	\$140	0270	\$2,150		\$5,500	\$110,000	\$8.8000			
17 17 17 18 18 18 18 18		Equip										99./4			99.74					99.74	40.98											
Total Total Rale + 20% Total Total Rale + 20% Total Total Total Rale + 20% Total	F	Mati																														
CAT#5 CAT#		S/C										1					1															
CAT#5		Labor	┢	<u>~</u>					,			\dagger	1				1	1						1								-
CAT#5		Rate	T	3ate + 20				9,	29.48	24.71	25.91					25.91	24.71		•			25.91	24.71	23.40	1						· ·	 _
17 17 17 18 18 19 19 19 19 19 19	0177	Total	1							_	7	70	2			-	8	48				_	9	٥	78		204.5	4,089	.327120			
17 CAT #5 Thorlum / Thorlum Soll Debris	***							,	0.0	0.	0.25	1	1		1.0	0.25	2.0		<u> </u>			0.25	1.00	200	1	· .			0			
OSDF PLACEMENT FY04 QTY	-	_							E .	È	눝.	È			È	È	녿			È	È	Ĕ	훋.	È				Ī				
CAT #5 Thorlum / Thorlum Soil Debris 625 cy / grid Trench method Excavation 125 cy = 5 hr Operator Laborer Foreman CAT 330 Trakhoe Total for 5 trenches Foreman Laborer Total for 5 trenches Backfill CAT 330 CAT 563 Foreman Laborer Total for 5 trenches Backfill CAT 330 CAT 563 Foreman Laborer Total for 5 trenches I colar for 5 trenches Backfill CAT 330 CAT 563 Foreman Laborer Total for 5 trenches I colar fo								1	2	2	S I	5			3	9	3			4	4	4	4	4								,
무 어 무 어 무 어 무 어 무 어 무 어 무 어 무 어 무 어 무 어		·		CAT #5	Thorium / Thorium Soil Debris	625 cy / grld	Trench method			mD Laborer	mD Foreman	CAT 330 Trakhoe	Total for 5 trenches	Place Thorium Debris/Soli 1.5' deep	CAT 330 Trakhoe		mD Laborer	Total for 5 trenches		Dackilli CAT 330	CAT 563	mD Foreman			Total for 5 trenches	ICY = \$19.68	Sublabal for 1 orid	Total times 20 grids	unit costs	•	•	

CONTRACTOR - Stated in FY01 DOLLARS

s.\estdeptlfy01rebaseline\pbs03\osdfplacement\cpl3\baseline ccpl3 osdf placement fy04.xls

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY04
ESTIMATE NO.: C2-2001-05-006 034
CLIENT: DOE
WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

TEM	OSDF PLACEMENT FY04	ΔTΥ	TIND	Σ	MAN-HOURS	S		COST/UNIT	UNIT		LABOR	S/C	MAT'L	EQUIP	TOTAL
Ŏ.				Unit	Total	Rate	Labor	S/C	Matil	Equip					
	Project Staffing	Shared				•									
		percent													
۵	Project Manager	30.0%	눝.	-	396	54.42					\$21,540				\$21,540
۔	General Superintendent	30.0%		_	396						\$14,980				314,980
۵	Superintendent	37.5%		7	066						\$32,650				\$32,650
	Project Engineer	40.0%		-	528						\$17,520				\$17,520
	Quality Engineer	37.5%	Ę	~	066						\$27,760				\$27,760
۵ ۵	Cofolic Carinoon	37.5%		, ,	000		•				\$30.03				\$30,030
٠.		0/ 5: 10		4	000				-		,				•
۵	Office Administration · in overhead	lead				19.31								-	
۵	Contract Administration/ Schedul in overhead	lead				25.58									-
۵	Clerical in overhead	ead				14.58									
	TOTAL				4,288	33.69					\$144,480				\$144,480
															-
		•													
		•													

					APPENDIA	NY Y						
PROJECT: OSDF PLACEMENT FY04	EMENT FYO	-			SITE SPECIFIC	ECIFIC					DATE: 17-May-01	17-May-01
ESTIMATE NOCZ-2001-05-006 034 CLIENT: DOE WBS NO.: 1.1.C.D	06 034			EFFICIEN	EFFICIENCY/MULTIPLIER ANALYSIS	PLIER ANA	TYSIS				LOCATION: 1	FERNALD CCPL3
1	CEORE	N CHART M	SHIOHNA									
	40%	50%	%09	70%	80%	%06	100%	105%	110%	%OF	WT'D VALUE	PROD. RESULT
CRAFT SKILL (NOTE 1)	POOR		•	FAIR			STD	V.G00D	XCELLEN	100.0%	12.0%	0.12
CRAFT AVAIL.(NOTE 1)		POOR		FAIR			STD			100,0%	8.0%	0.08
CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			%0.0%	20.0%	0.18
PLANT ELEVATION		OVER 10,000FT			5,000' TO 10,000 FT		UNDER 5,000 FT		Company of the Compan		2.0%	0.05
WORK SPACE	< MULT	MULTIPLE SHIFTS-	ė,	200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	0.1
WORK WEEK							4-10s / 5-8s			100.0%	15.0%	0.15
50 HOUR WORK WEEK	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	ninninnin militari militari militari III multiple-shift militari	HITHINI	OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS				.0.0%	%0.0	0
60 HOUR WORK WEEK		INTERNATION INTERNATIONAL	OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS					0.0%	%0.0	0
SHIFTWORK 2ND SHIFT 3RD SHIFT			3RD SHIFT		2ND SHIFT		OR ONE SHIFT ONLY			100.0% 100.0%	3.0%	0.03
PROJECT SIZE					400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		100.0%	4.0%	0.04
PLANT TYPE			·	REVAMP ONLY	REVAMP & NEW	NEW IN EXIST PLT	GRASS ROOTS			%0.06	8.0%	0.072
AREA/UNION INFLUENCE	STRONG	·	MILD		SOME		NONE			40.0%	10.0%	0.04
NOTES											100.0%	91.2%
1. TURNOVER HAS BEEN CONSIDERED	CONSIDERE	_ A			EFFICIENCY		(AS A % OFF CHART MANHOURS)	MANHOUR	(S)			91.2%
2. FOR EXTERIOR WORK ONLY	ONLY	·		-	MULTIPLIE	R-(TOBE	MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S)	HART M.H.	S TO OBTA	IN SITE M.H	(\$;	1.10

EFFICIENCY FACTORS

PROJECT:

OSDF PLACEMENT FY04

ESTIMATE NO. C2-2001-05-006 034

CLIENT: WBS NO .: DOE 1.1.C.D

Fluor Fernald, Inc.

17-May-01 ESTIMATOR: T.WAGNER LOCATION: FERNALD

TASK NO.: CCPL3

EXAMPLE:

STANDARD CHART MANHOURS = NET 100 **EFFICIENCY FACTORS:** SITE SPECIFIC (SEE APPENDIX A) 10% 10.0 S/T = BASE UNIT MANHOURS 110

OVERTIME PRODUCTIVITY FACTOR 0.00% (SEE DETAIL WORKSHEET BACK-UP)

* TASK SPECIFIC (confined space, high elevation, congestion, etc.)

PPE SPECIFIC (Based on current data and estimating knowledge)

				PPE LEV	/EL				•	
		D	Mod.	'D'	Mod.	"C"	C		C4	-
 PRODUCTIVITY HOURS 		MH's	MULTIPLIER	MH's	MATTPLIER	MH's	MALTIPLIER	MH's	MULTIPUER	MH's
(ASA%)/ADDMH's	4.00%	4	28.00%	31	66.00%	73	74.00%	81	96.00%	106
(AS A MULTIPLIER)/TOTAL HR:	1.04	114.4	1.28	140.8	1.66	182.6	1.74	191.4	1.96	215.6
OTAL MULTIPLIER W/SITE PROD.	1.144		1.408		1.826		1.914		2.156	
NOTE: Use the De	fault Produ	ctivity Factor of	'mC' for wo	rking						
in a contan	ninated area	a if the Safety Le	vel cannot	be determin	ed.					
<u> </u>										
(SEE FD FERNALD ES	TIMATING SE	RVICES REFEREN	CE MANUAL	IM-6006 8.10	?				l	
									1	
Total hours worked	in a specif	ic PPE level divi	ded by 10 h	our working					i i	
days = (PPE) ManD	-		-							
(SEE APPENDIX C	- HEALTH	PHYSICS)							1	
	11.0	Man Days	14.0	Man Days	18.0	Man Days	19.0	Man Days	22.0	Man Days
			1					l	l i	

THESE EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY THROUGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL, TO OBTAIN A MORE ACCURATE ACCOUNT OF OVERALL **EFFICIENCY IMPACT DUE TO PPE REQUIREMENTS IN** HANDLING CONTAMINATED AND HAZARDOUS WASTE.

EFFICIENCY FACTORS

PROJECT:

OSDF PLACEMENT FY04

ESTIMATE NO. C2-2001-05-006 034

CLIENT: WBS NO.:

DOE

Fluor Fernald, Inc.

DATE:

17-May-01 ESTIMATOR: T.WAGNER

LOCATION: TASK NO.:

FERNALD CCPL3

PPE MULTIPLIER DEVELOPEMENT

_		D	mD	mC .	С	C+
CREW SIZE & MAKE-UP	STANDARD	7	7	7	7	7
	WORKER-BUDDY	0	o	o	ol	0
	SUPPORT TEAM	0	o	o	o	0
	TOTAL CREW	7	7	7	7	7
CREW SIZE RATIO		1.00	1.00	1.00	1.00	1.00
AVAILABLE WORK TIME FA	ACTOR	0.96	0.78	0.7	0.7	0.68
PPE LABOR PRODUCTIVIT	Y FACTOR	1	1	0.86	0.82	0.75
NET PRODUCTIVITY RATIO		0.96	0.78	0.602	0.574	0.51
NET PRODUCTIVITY MULT	TPLIER	1.04	1.28	1.66	1.74	1.96

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Selg. Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C. The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

AVAILABLE WORK TIME FACTOR	?		D	mD	mC I	СТ	C+
TOTAL WORK MINUTES per D 4 1			600	600	600	600	600
ADDITN'L SITE SAFETY MEETINGS NOT INCL		QUANTITY	1	1	1	1	1
		MINUTES	25	25	25	25	25
TOT	AL		25	25	25	25	25
PPE DON & DOFFING	. 1	QUANTITY	0	0	. 3	3	3
(ADJUST LEVEL D per WORK PLAN)		MINUTES	0	0	15	15	20
тот	AL	Ī		0	45	45	60
WORK BREAKS		QUANTITY	N/A	2	2	2	. 2
(ADJUST LEVEL D per WORK PLAN)		MINUTES	N/A	15	15	15	15
TOT	AL			30	30	30	30
MOBILIZATION - ROUND TRIPS		QUANTITY	N/A	4	4	4	4
(ADJUST LEVEL D per WORK PLAN)		MINUTES	N/A	15	15	15	15
тот	AL			60	60	60	60
COOLDOWNS PER DAY		QUANTITY	N/A	4	4	4	4
** (4 OUT OF 12 MONTHS)	33.33%	MINUTES	N/A	15	15	15	15
TOT	AL			20	20	20	20
AIR TANK REPLACEMENT		QUANTITY	N/A	N/A	N/A	N/A	N/A
		MINUTES	N/A	N/A	N/A	N/A	N/A
TOT	AL						
AVAILABLE WORK TIME			575	465	420	420	405
AVAILABLE WORK TIME FACTOR			0.96	0.78	0.7	0.7	0.68

NOTE: Adjust Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's. Any other circumstances, over-ride the minutes per day.

^{**} Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances.

HEALTH PHYSICS

PROJECT:

OSDF PLACEMENT FY04

ESTIMATE NO. C2-2001-05-006 034

CLIENT: WBS NO .: DOE

1.1.C.D

DATE:

17-May-01

ESTIMATOR: T.WAGNER LOCATION: FERNALD

TASK NO.: CCPL3

Fluor Fernald, Inc.

PPE"s - PERSONAL PROTECTIVE EQUIPMENT

		UNIT		* NO. 0	OF CHANGE OU	TS PER WORKER	PER DAY
DESCRIPTION	UNIT	COST	Man Da	rys (TOTAL HOUR	S worked in PPE's [W. by WORK HOURS	DAY) .
PPE LEVEL C / C+ / B: F/HF MASK W/RESP.&CAF	रा.		*	MAN DAYS	MAT'L.\$'s	PPE LEVEL	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	0	\$0	*,C1G+	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	0	\$0	C/C+:.	(DOUBLE PPE)
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	0	\$0	C/C+	
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	0	\$0	⇒c/c+	
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	0		C/C+	
APR CARTRIDGES - DISPOSABLE	PR	\$6.98	3	0	\$0	CC/C+	
SUB-TOTAL		\$17.42	3		\$0		
				\$/MD =	\$0.00		•
PPE LEVEL mD: FULL DRESS				MAN DAYS	MAT'L.\$'s	PPELEVEL	
						1	

				\$/MD =	\$17.94		
SUB-TOTAL		\$5.98	3		\$25,486		
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	1421	\$4,347	mC = .	
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	1421	\$1,108	// ≥/mC	
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	1421	\$1,023	r, smC ≥	
LT.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIES	PR	\$4.46	3	1421	\$19,008	:::::mC:::::	
PPE LEVEL mD: FULL DRESS				MAN DAYS	MAT'L.\$'s	PPELEVEL	

		•	QTY.			
		•	PER	NO. OF	•	
SUBCONTRACTOR REQUIRED PURCHASES			WKR.	WORKERS	MAT'L.\$'s	PPELEVEL
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	\$12.70	6	8	\$610	DIC/B
APR w/HALF FACE MASK - (1) PER WORKER	EA	\$22.30	6	0	\$0	C. Co.
APR w/FULL FACE MASK - (1) PER WORKER	EA	\$174.00	6	0	\$0	- C.
SCBA	EA	\$1,894.00	2	0	\$0	- 2B
COOL VESTS	EA	\$137.50	6	0	\$0	C/B←
THERMO STRIPS	EA	\$50.00	6	0	\$0	C/B
SUB-TOTAL	,				\$610	

TOTAL PPE's =

MAT'L.\$'s \$26,100

(FORWARD TO PAGE 2 OF 2)

OTHER PPE'S SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. COSTS OF FD FERNALD SUPPLIED PPE's, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCURRED BY FD FERNALD AND COSTS ARE NOT INCLUDED AS PART OF PROJECT COSTS AT THIS TIME.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: **OSDF PLACEMENT FY04**

ESTIMATE NO. C2-2001-05-006 034

CLIENT: WBS NO .:

DOE 1.1.C.D Fluor Fernald, Inc.

DATE:

17-May-01

ESTIMATOR: T.WAGNER LOCATION: FERNALD

TASK NO.: CCPL3

-MEDICAL MONITORING -

MEDICAL - PHYSICAL and IN-V	VO MO	NITORING .	- LOST	WORKER T	IME for RAD	I WORKERS	ONLY
					AVG.		
DESCRIPTION	QTY	HRS	WKR	TOTAL	LABOR	TOTAL	
PHYSICAL (3hrs), IN-VIVO (1hr)				HOURS	RATE	LABOR \$	
BASELINE PHYSICALS	1	4	9	36	\$28.77	\$1,040	
ANNUAL PHYSICALS	1	4	9	36	\$28.77	\$1,040	
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	9	9	\$28.77	\$260	l
SUB-TOTAL	-					\$2,340	

RADIATION IN-VITRO SUF	RVEILLAI	NCE - LOS	T WOR	KER TIME fo	or RAD II WC	RKERS ONLY	
DESCRIPTION	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR \$	
BI-MONTHLY BIOASSAY	6	1	9	54	\$28.77	\$1,550	
	·						
SUB-TOTAL						\$1.550	

RANDOM DRUG TESTING

 ,,	7110011101		011110			
	TESTS	HRS	TOTAL HOURS	AVG. RATE	LABOR \$'s	
	16	2	32	\$28.77	\$900	·
NO. OF	TESTING	AVG. NO.	CHANCE/	NO. OF WKRS.	CHANCES	CONSTR
WKRS.	DAYS	OF TESTS	DAY	FOR THIS	/DAY FOR TEST	WORKING
TESTED	PER YR.	PER DAY	FOR TEST	ESTIMATE	FOR PROJECT	DAYS
2340	226	10	0.0042735	16	0.0684	227

•	LABOR \$5		
	THRU		
	SAFETY	LABOR \$'s	
WORK DELAYS CAUSED BY MONITORING 0.0%	\$785,192	\$0	
		LABOR \$'s	
WORK DELAYS CAUSED BY RAD CHECKING 0.0%	\$785,192		
	TOTAL	TOTAL	GRAND
	LABOR	MAT'L.	TOTAL

TOTAL HEALTH PHYSICS \$4,800 \$26,100 \$30,900 (FORWARD TO ESTIMATE SUMMARY SHEET)

ACTIVITY DURATIONS

Fluor Fernald, Inc.

PROJECT: OSDF PLACEMENT FY04 ESTIMATE NO. C2-2001-05-006 034

CLIENT: DOE WBS NO.: 1.1.C.D

DATE: 17-May-01
ESTIMATOR: T.WAGNER
LOCATION: FERNALD
TASK NO.: CCPL3

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
CONSTRUCTION:	01-May-01	701-Oct-03	31-Mar-04	30-Sep-04	12.0	MONTHS
					0	MONTHS
TOTAL					12.0	MONTHS

	DATE of EST. to MID-POINT CTIVITY DURATION								
	CHVITY DURAL	ION							
a.	35.0	MONTHS							
b.	0	MONTHS							

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
				·		
OPERATIONS					. 0	MONTHS

DATE of EST. to MID-POINT CTIVITY DURATION				
0	MONTHS			

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

ESTIMATE SUMMARY SHEET

PROJECT:

OSDF PLACEMENT FY05

CLIENT:

DOE

ESTIMATE #: C2-2001-05-006 35 Fluor Fernald, Inc. DATE:

17-May-01 ESTIMATOR: T.WAGNER

LOCATION: FERNALD

WBS #: 1.1.C.D						TASK NO.:	CCPL3
ITEM DESCRIPTION	M/H	RATE	LABOR \$	S/C \$	MAT'L \$	EQUIP.\$	TOTAL \$
Post Award Document (Bonds & Insurance)				\$43,800			\$43,80
Submittals	1,600		\$80,210	1			\$80,21
Overhead & Profit				\$561,826			\$561,82
Off Hour Dust Control				\$20,000		ĺ	\$20,00
Control & Management (separate estimate)		l					
Site Prep	5,520	-	\$161,580	\$102,300	\$6,230	\$145,468	\$415,5
OMTA Operations (including shutdown)	9,369		\$250,750		, ,	\$314,678	\$565,4
Removal of Impacted portion Haul Rd	141		\$3,770	l		\$5,800	\$9,5
Placement of 12" Protective Layer	705		\$18,850	1		\$9,710	\$28,5
Placement of 24" Select Layer	1,325	l	\$35,710	į.		\$13,840	\$49,5
Placement of 36" Select Layer	2,312		\$62,790	İ.	\$480	\$32,940	\$96,2
Placement of CAT #1 1Q	2,348		\$63,276	l	4-100	\$28,308	\$91,5
Placement of CAT #1 3&4Q	3,757		\$101,242	1		\$45,293	\$146,5
Placement of CAT #2 & #4 Above Grade 1Q	3,737		\$101,242	1		\$ 4 5,295	\$140,0
Placement of CAT #2 & #4 Above Grade 3&4Q	481		\$11,895	1		\$10,368	\$22,2
Placement of CAT #3 Palletized Transits 1Q			\$11,095			\$10,366	\$ 22,2
Placement of CAT #3 Palletized Transits 3&4Q	2 500	1	£00.750			ecr 000	6469.7
Placement of CAT #5 Palletized Transits 3&4Q	3,598		\$98,750	1		\$65,000	\$163,7
	4 044		\$20,964	1			040.4
Placement of CAT #5 Friable Asbestos 3&4Q	1,014	ļ		1		\$22,527	\$43,4
Placement of CAT #2 @ & Below Grade 1Q	1,139		\$31,160			\$29,640	\$60,8
Placement of CAT #2 @ & Below Grade 3&4Q	2,996		\$82,000			\$78,000	\$160,0
Placement of CAT #5 Thorium/Soil Debris 1Q	981		\$26,400			\$32,640	\$59,0
Placement of CAT #5 Thorium/Soil Debris 3&4Q	1		1				
DIRECTELE PROCESSOR	27 207	620 44	61 040 247	\$727.026	ec 740	6924 242	60 649 4
DIRECT FIELD COSTS TOTAL	37,287	\$28.14	\$1,049,347	\$727,926	\$6,710	\$834,212	\$2,618,1
PM & GEN SUPER, SUP. ENG, QA, & SAFETY	3,158	\$33.61	\$106,160				\$106,1
				1			
	.			İ			
·			1		•		
				-			
HEALTH PHYSICS	128		\$3,600		\$26,100		\$29,7
				1			
PAYROLL BURDENS & BENEFITS	į		\$660,700				\$660,7
			1	•			
	I						
SALES TAX					\$2,000		
MDIRECT FIELD COSTS FOTAL,	3,286		\$770,460		\$28,100	\$50,100	
DIRECTS INDIRECT FIELD COSTS TOTAL	40,573	\$44.85	\$1,819,807	\$727,926	\$34,810	\$884,312	\$3,466,
	Table San Company Comment Comment	and the control of the control of the A		7 No. 1	Store man & Fix there -	Allahotela manarata da Sa	
	CONTRACTOR OF THE PARTY OF THE	ar and the state of the state of the	SY OF DOE				\$3,466,8

ESTIMA	ATE SUMN	IARY SHI	EET			
PROJECT: OSDF PLACEMENT FY05				•	DATE:	17-May-01
ESTIMATE NO.:C2-2001-05-006 35	ACTO	RS			ESTIMATOR:	T.WAGNER
CLIENT: DOE WBS NO.: 1.1.C.D		•.	, •		LOCATION: TASK NO.:	FERNALD CCPL3
FIXED PRICE S	LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE \$	TOTAL \$
DFC DOLLARS	\$1,049,347	\$727,926	\$6,710	\$834,212	\$26,100	\$2,644,295
IFC COST FACTOR	1.7342		1.0000	1.0000	-	
	1.0000	1.0000	1.0000	1.0000	1.0000	
SALES TAX		•	1.0600	1.0600	1.0600	
A second						二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十
DIRECT FIELD COST FACTOR =	1.7342	1.0000	1.0600	1.0600	1.0600	
BASE ESTIMATE \$'S	\$1,819,807	\$727,926	\$7,113	\$884,264	\$27,666	\$3,466,776
and the second s	Secretary and the second	فلغ والدياس والمنظ				
BASE FACTOR	1.0000		1.0000	1.0000	1.0000	
		R. L. L. C.		THE LEVEL OF THE	91 3205	
TARGET ESTIMATE FACTOR	1.7342	1.0000	1.0600	1.0600	1.0600	
	2122		20000	27-61-52-5	n. L. Tira	
FPS TARGET ESTIMATE (FY01 \$)	\$1,819,807	\$727,926	\$7,113	\$884,264	\$27,666	\$3,466,776
	· Becommend	Sand the Contraction	(1) 100 · 1	A STATE OF THE SECOND	man or the second	N. T. Carlotte

NOTE:

F THERE ARE NO DFC EQUIP, \$, ENTER THE IFC EQUIP, \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

	ESTIMATE SUMMARY SHEET							
PROJECT:							DATE:	17-May-01
	:C2-2001-05-006 35		CT FIELD				ESTIMATOR:	T.WAGNER
CLIENT:	DOE	_ W /	FACTO	RS			LOCATION:	FERNALD
WBS NO.: PAY ITEM NO.	1.1.C.D		14800.6	S/C \$	MATILE	EOUID 6	TASK NO.:	CCPL3
PATTIEM NO.	DESCRIPTION		LABOR \$		MAT'L. \$ E MAT'L.\$'S)>>	EQUIP. \$	PPE \$	TOTAL \$
1	Post Award Document (Bonds & Insura			43800			Ŀ	
				\$43,800				\$43,800
2	Submittals		80210					•
			\$139,100			,	. [\$139,100
	0			504000				
. 3	Overhead & Profit			561826 \$561,830			-	\$561,830
				*****				7
4	Off Hour Dust Control			20000				
				\$20,000			-	\$20,000
6	Site Prep		161580	102300	6230	145468	4,951.75	
			\$280,220	\$102,300	\$6,600	\$154,200	\$5,250	\$548,570
7	OMTA Operations (including shutdown)		250750	٠.		314678	7,684.44	
'	om m operations (moduling stratuowill)		\$434,860			\$333,560	\$8,150	\$776,570
							l T	
8 ,	Removal of Impacted portion Haul Rd		3770 \$6,540			5800 \$6,150) <u> </u>	\$12,810
			\$0,540			φο, 130	\$120	4 12,010
9	Placement of 12" Protective Layer		18850			9710	1 *	
			\$32,690			\$10,290	\$610	\$43,590
10	Placement of 24" Select Layer		35710		·	13840	1,094.36	
"			\$61,930	1		\$14,670		\$77,760
	Discourant of CON Colors						4.001.00	
. 11	Placement of 36" Select Layer		62790 \$108,890	i .	480 \$510	32940 \$34,920	1 '	\$146,360
			7.55,550	1		407,520	42,040	4. 10,000
12	Placement of CAT #1 1Q		63276	ł .		28308	1 .	
	1		\$109,740			\$30,010	\$2,060	\$141,810
. 12	Placement of CAT #1 3&4Q		101242.1242			45292.52925	3,102.65	
l			\$175,580] .	\$48,010	\$3,290	\$226,88
13	Placement of CAT #2 & #4 Above Grad						_	
	· lacement of OAT #2 C #4 Above Glad							
İ	1			}				
13	Placement of CAT #2 & #4 Above Grad		11894.73684 \$20,630	1		10368.42105 \$10,990	1 1	\$32,01
			\$20,000			\$10,550	\$550	402,01
14	Placement of CAT #3 Palletized Transi			-			-	
								L
14	Placement of CAT #3 Palletized Transi		98750			65000	3,026.27	. ,
			\$171,260	1		\$68,900	.,	\$243,37
15	Blacement of CAT #5 Sinhle Ashestes							
15	Placement of CAT #5 Friable Asbestos						-	
15	Placement of CAT #5 Friable Asbestos		20964.07186	1		22526.9461	1	\$60.00
-			\$36,360	Ί		\$23,880	\$680	\$60,92
16	Placement of CAT #2 @ & Below G		31160	1.		2964	1	
			\$54,040			\$31,42	\$1,010	\$86,47
16	Placement of CAT #2 @ & Below G	•	82000			7800	2,512.96	1
			\$142,210			\$82,68	1 '	\$227,55
17	Placement of CAT #5 Thorium/Soil Deb		26400 \$45,780	1		3264 \$34,60		\$81,24
1	·		1 275,700			\$34,00	φ660	16.24
17	Placement of CAT #5 Thorium/Soil Deb		1					
	1							
TOTAL DIPE	CT FIELD COSTS W/FACTORS		(FY01 DOLL	ARS)		.1		\$3,470,64
TOTAL DIRE	OT FIELD COSTS WIFACTORS			ARS)	450			₩ 0,410,0.

Cost Allocati	on for Baseli	ne Entry
1 Post Award		\$43,800
2 Submittal		\$139,100
Subtotal		\$182,900
3 Overhead & Profit		\$561,830
	<u> </u>	
4 Off Hour Dust Control		\$20,000
6 Site Prep		\$548,570
Subtotal		\$568,570
7 OMTA Operations (includi	ina chutdoum)	\$776,570
8 Removal of Impacted port	•	\$12,810
Subtotal	IOII Flaui. Nu	\$789,380
9 Placement of 12" Protecti	ve Layer	\$43,590
10 Placement of 24" Select L	0100	\$77,760
Tracement of 24 Select L	.ayer	\$77,700
11 Placement of 36" Select L	ayer	\$146,360
12 thru 17 Quarter 1		\$309,520
12 thru 17 Quarter 3 & 4		\$790,730
Grand Total		\$3,470,640
Verify old total		\$3,470,640
	Match %	100.00%
5		

CONTRACTOR - Stated in FY01 DOLLARS

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY05
ESTIMATE NO.: C2-2001-05-006 35
CLIENT: DOE
WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

	STIMMADY	ΛLO	TINE	Ž	MAN-HOURS			COST / UNIT	UNIT		LABOR	S/C	MATIL	EQUIP	TOTAL
2				ž Š	Total	Rate	Labor	S/C	Matil	Equip					
	Post Award Document (Bonds & Insurance)									-		\$43,800	-		\$43,800
- 7	Submittals				1,600						\$80,210			<u> </u>	\$80,210
က	Overhead & Profit											\$561,826			\$561,826
4	Off Hour Dust Control											\$20,000			\$20,000
v.	Control & Management (separate estimate)												•	-	
9	Site Prep				5,520						\$161,580	\$102,300	\$6,230	\$145,468	\$415,578
	OMTA Operations (including shutdown)				698'6			. —		٠	\$250,750		·	\$314,678	\$565,428
- σ	Removal of Impacted portion Haul Rd				141						\$3,770			\$5,800	\$9,570
6	Placement of 12" Protective Layer				705						\$18,850			\$9,710	\$28,560
5	Placement of 24" Select Layer				1,325					:	\$35,710			\$13,840	\$49,550
=	1 Placement of 36" Select Layer				2,312						\$62,790		\$480	\$32,940	\$96,210
12 22	2 Placement of CAT #1 1Q Placement of CAT #1 3&4Q				2,348						\$63,276			\$28,308 \$45,293	\$91,584 \$146,535
£ £					481						\$11,895			\$10,368	\$22,263
4 4					3,598						\$98,750			\$65,000	\$163,750
15					1 044	-					\$20.964			\$22,527	\$43,491
15 45	5 Placement of CAT #28#4 @ & Below Grade 1Q				1,139	-					\$31,160			\$29,640	\$60,800
. é		- 4 -			2,996						\$82,000			\$78,000	\$160,000
17	7 Placement of CAT #5 Thorium/Soll Debris 3&4Q Placement of CAT #5 Thorium/Soll Debris 3&4Q	_		<u>-</u>	5										
								-							C. C. C. C. C. C. C. C. C. C. C. C. C. C
	Molye.		TO T		Water Pagistr	2885 KIL					The Saroa erad	Sec. 02.00 (2.00)	100 SE ST		

PROJECT: OSDF PLACEMENT FY05
ESTIMATE NO.: C2-2001-05-006 35
CLIENT: DOE
WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

TOTAL			\$30,080	\$80,210		\$20,000	
EQUIP					·		
MAT'L							
S/C						\$20,000	
LABOR			\$30,080	\$80,210			
Equip							
Matil				1	٠.		
S/C ME			<u> </u>	-		20,000	
Labor		1					
S			50.13				
MAN-HOURS Total			900	1600			
Cnit			50.0	0.01			
UNIT	-	2	ea	ea		S	
QTY UNIT				3		1	
		Bonds & Insurance (calculated on summary)		Technical submittals allowance	Off Hour Dust Control	Off Hour Dust Control allowance	
ITEM	-	•	8		4		vo

PROJECT: OSDF PLACEMENT FY05 ESTIMATE NO.: C2-2001-05-006 35

. 1.1.C.D CLIENT: WBS NO.:

Fluor Fernald, Inc.

\$ \$80,440 \$44,690 \$52,490	\$80,440 \$44,690 \$2,490 \$1,390	3,770 12.55 \$80,440 \$44,690 100.00 \$2,490 \$1,390 \$1,660	3,770 \$80,440 \$44,690 100.00 \$2,490 \$1,390 \$1,660 \$1,050 \$1,050	3,770 \$80,440 \$44,690 100.00 \$2,490 \$1,390 \$1,660 \$1,050 \$1,050 \$1,050 \$620	3,770 \$80,440 \$44,690 100.00 \$2,490 \$1,390 \$1,050 \$1,050 \$1,050 \$1,050 \$1,390 \$1,050 \$1,390	3,770 \$80,440 \$44,690 \$1,390 \$1,050 \$1,050 \$1,050 \$1,050 \$1,050 \$1,050 \$1,050 \$1,050 \$1,050 \$1,050 \$1,050 \$1,050	3,770 \$80,440 \$44,690 100.00 \$2,490 \$1,390 \$1,050	3,770 \$80,440 \$44,690 \$1,390 \$1,660 \$1,050 \$1,050 \$1,390 \$1,050 \$1,050 \$1,390 \$1,050 \$1,390 \$1,050 \$1,390 \$1,30	3,770 \$80,440 \$44,690 \$1,390 \$1,660 \$1,05	3,770 12.55 \$80,440 \$44,690 \$1,390 \$1,050 \$1,050 \$1,390 \$1,390 \$780 \$1,390 \$780 \$1,390 \$1,300 \$1	3,770 12.55 \$80,440 \$44,690 \$1,390 \$1,660 \$1,660 \$1,660 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$2,090 \$2,090	\$3.770 \$80,440 \$44,690 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$2,090 \$1,260 \$1,260 \$1,260
	3,770 12.55 \$80,440 \$44,690 100.00 \$2,490 \$1,390	\$3.770 \$80,440 \$44,690 \$1,390 \$1,660 \$1,660	\$17.0 \$80,440 \$44,690 100.00 \$2,490 \$1,390 \$1,660 \$1,050	\$17.0 \$80,440 \$44,690 \$1,390 \$1,660 \$1,050 \$1,050 \$1,050 \$1,050	\$44,690 \$44,690 \$1,390 \$1,660 \$1,050 \$1,050 \$520 \$1,390 \$1,050 \$1,050 \$1,050 \$1,050 \$1,050	\$17.0 \$1.55 \$44,690 \$1,390 \$1,660 \$1,660 \$1,050 \$1,050 \$1,390 \$1,390 \$1,390	\$44,690 \$44,690 \$1,390 \$1,660 \$1,050 \$1,050 \$1,390 \$1,050 \$620 \$830 \$700 \$700	\$44,690 \$44,690 \$1,390 \$1,660 \$1,660 \$1,050 \$1,050 \$1,050 \$620 \$1,390 \$1,050 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390	\$44,690 \$44,690 \$100.00 \$1,390 \$1,050 \$1,050 \$1,050 \$1,050 \$1,050 \$1,050 \$1,390 \$1,050 \$1,390 \$1,050	\$44,690 \$44,690 \$1,390 \$1,660 \$1,060 \$1,050 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390	\$44,690 \$44,690 \$1,390 \$1,050 \$1,050 \$1,390 \$1,390 \$1,390 \$700 \$1,390 \$700 \$1,390 \$700 \$1,390 \$700 \$1,390 \$700 \$1,390 \$700	\$44,690 \$44,690 \$44,690 \$1,390 \$1,050 \$1,050 \$620 \$620 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390
	12.55	12.55	12.55	12.55	12.55 \$ 100.00 25.17 25.17	12.55 \$ 100.00 25.17 25.17	12.55 \$ \$ 25.17 25.17 29.74	12.55 \$ 100.00 25.17 25.17 29.74	12.55 \$ 100.00 25.17 25.17 29.74	12.55 100.00 100.00 25.17 25.17 29.74 13.62	12.55 100.00 100.00 25.17 25.17 39.74	\$12.55 \$80,440 \$44,690 \$44,690 \$1,390 \$5.17 \$1,050 \$5.00 \$1.390 \$830 \$830 \$73.62 \$1,390 \$5.090 \$1,390 \$5.090
00.00		-	÷	÷	+	÷	-	-	-	-	-	-
										- m		
												102,300
80 80		. 26 56 56	88 56 56 72	85 56 56 21	85 56 21 21	85 56 72 72 73 75 76	85 56 21 28 28	85 56 21 28 28	85 56 21 28 28	85 56 56 78 78 78 78 78	85 56 24 56 85 28 28 28 85 85	85 56 76 76 76 76 76 76 76 76 76 76 76 76 76
	= ±	= = = =	± = ± ± ± ±		는 녹토토 8 로토로 5	± ±±±8±±±±	는 녹분분용분분 보통	는 = 눈눈눈 등 눈눈 는 는 는 는 는 는 는 는 는 는 는 는 는 는 는	= 4244 444844 =	8 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	5 = 5	z = \$ # # # # # # # # # # # # # # # # # #
-	2,000	2,000 40 40	2,000 40 40 312 15	2,000 4 0 312 15	2,000 4 40 312 15 15 15	2,000 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	2,000 4 4 6 312 312 51 51 50 50 50	2, 000, 04 4 4 5 02 22 22 22 22 22 22 22 22 22 22 22 22 2	2, 2, 3, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,			
שוסמווקשווסון סו פלמולוויפוור		snce rer ator 416 backhoe	fence orer arator T 416 backhoe aw bales orer	t fence borer T 416 backhoe raw bales borer erator T 416 backhoe	ilt fence aborer perator AT 416 backhoe traw bales aborer AT 416 backhoe AT 416 backhoe	illt fence aborer Sperator SAT 416 backhoe aborer perator SAT 416 backhoe sAT 416 backhoe aborer satall check dams/SIDs aborer	ilf fence aborer Aperator AT 416 backhoe itraw bales aborer AT 416 backhoe nstall check dams/SIDs aborer perator aborer Aborer Aborer Aborer Aborer Aborer ABORER	tence borer borer NT 416 backhoe raw bales borer NT 416 backhoe stall check dams/SIDs borer AT 330 Trachoe pe D Rip Rap	It fence borer perator AT 416 backhoe traw bales thorer AT 416 backhoe AT 416 backhoe stall check dams/SIDs aborer AT 330 TracHoe rpe D Rip Rap aul Truck onstruction/RAD fencing 4' wir	illt fence aborer Jperator AT 416 backhoe itraw bales aborer Jperator AT 416 backhoe nstall check dams/SIDs aborer Jperator AT 330 TracHoe Ype D Rip Rap faul Truck aborer saborer Anstruction/RAD fencing 4' wir aborer nstall const/grid signage	Silt fence Laborer Operator CAT 416 backhoe Straw bales Laborer CAT 416 backhoe CAT 416 backhoe Install check dams/SIDs Laborer CAT 330 Trachoe Type D Rip Rap Haul Truck Construction/RAD fencing 4' wir Laborer Install const/grid signage Site prep	Silt fence mD Laborer CAT 416 backhoe Straw bales mD Laborer mD Operator CAT 416 backhoe install check dams/SiDs mD Laborer mD CAT 330 Trachoe Type D Rip Rap Haul Truck mD Laborer linstall const/grid signage Site prep mD Laborer survey Survey

PROJECT: OSDF PLACEMENT FY05 ESTIMATE NO.: C2-2001-05-006 35 CLIENT: DOE

WBS NO.:

1.1.C.D

Fluor Fernald, Inc.

TOTAL		\$59,600 \$55,060 \$20,740 \$19,770 \$37,710	\$164,420 \$121,931 \$57,346	\$6,350	\$565,428	\$1,990 \$2,340 \$1,470	\$1,660 \$1,410 \$700	\$9,570	
EQUIP		\$59,600 \$55,060 \$20,740	\$121,931 \$57,346		\$314,678	\$1,990 \$2,340 \$1,470		\$5,800	
MAT'L									
S/C									
LABOR		\$19,770 \$37,710 \$22,500	\$164,420	\$6,350	\$250,750		\$1,660 \$1,410 \$700	\$3,770	
	Equip	107.95 99.74 37.57	73.62			99.74 116.98 73.62			
UNIT	Mat'l		· · · · · · · · · · · · · · · · · · ·						
COSTAUNIT	S/C		5,075,00						
	Labor		%03			%03			
S	Rate	21.59 20.59 24.57	Rate + 20% 29.92	30.00		Rate + 20%	29.48 24.94 24.71		
MAN-HOURS	Total	916 1,832 916	5,495	212	698'6		56 56 28	141	
2	E S	2-		က		0	7 7 7		
FIND		4444	F F F S	Ė		로 글 로	222		
ΔI		552 552 552 552 650 650 650	1,949 1,656 1,656			20 20 20 20 20 20 20 20 20 20 20 20 20 2	2 20 20	-	
E OSDF PLACEMENT FY05		7 OMTA Operations (including Shutdown) 7 A apply to ea fiscal yr of FY04 - FY08 OMTA Operations thru shutdown period (approx. 3 mo) CAT 973 Track Loader/4way bucket CAT 930 Excavator/grappler Tractor (farm) D Foreman (3 mo) D Laborer (3 mo) D Operator (3 mo)	D Teamster (9 mo) ROB Truck (Site Owns) CAT TH83 (9 mo) Purchase of office trailer (8x12) FY04 7 B Special for Lighting FY06 & FY07 Lighting double shift	7 B Special for FY04 - FY08 Training & Hiring of 5 additional personnel for night shift Training Training based on HithPhys Sheet	OMTA Operations (Including shutdown)	8 Removal of Impacted portion of OSDF Haul Rd (2 DAYS X 7) CAT 330 excavator CAT D8 dozer Haul Truck			
PPE	Level	E E E	ПD				무무		

PROJECT: OSDF PLACEMENT FY05 ESTIMATE NO.: C2-2001-05-006 35 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

DATE: 17-May-01
ESTIMATOR: T.WAGNER
LOCATION: FERNALD
TASK NO.: CCPL3

_																				_											
TOTAL				\$3,480	\$0,230	41,000 41,000	40,710	010,00	\$28 F60	000'07#	•	\$6,970	\$12,450	\$16,630	\$1,390	099,୮\$	\$49,550		£9 750	647.440	000.16	000,44	929,100	#24,330	070'00	400	45,400	0/84	\$96,210		
EQUIP				\$3,480	90,230			<u> </u>	\$9 740	01,100		\$6,970	\$12,450		\$1,390		\$13,840		40 750	647 440	011,714	44,660					100	0/84	\$32,940		
MAT'L																									6700	0014			\$480		
s/c											•	÷																			
LABOR					64 830	000,14	96,710	\$8,310	C10 950	000014			\$17.420	\$16,630		\$1,660	\$35,710						\$29,100	\$24,530	020,04	4	\$3,480		\$62,790		
	Equip			40.98	73.26							40.98	73.28		40.98				9	40.38	73.26	40.98					;	20.48			
UNIT	Mati																								3	0.30					
COST/UNIT	S/C								-	1								·													
	Labor		%0								%07									 %	_										
SS	Rate		Rate + 20%					29.48	-		Rate + 20%		24.74			29.48				Kate + 20%					29.48		24.71				
AN-HOURS	Total				. 7		353	282	102	(O)	·		705	564		56	1,325					,	987	786	19/		141		2312	21012	
MA	Cuit				Ċ	C. 0	2.5	2.0					C	2.0	1.0	0.							2.5	2.5	<u>.</u>	,	2.0				
LINIT				Ė	= 1	늘 .	=	E				Ĕ	± غ	= =	녿	È				눝 .	È	Ė	Ξ.	눝 .	ድ :	=	늗	ځ			
YIO				82	82	2 5	9	9				170	170	200	34	9				238	238	119	280	280	140	1,600	20	42.5	Ī	1	
OSDE PLACEMENT FY05		_	9 Placement of 12" Impacted protection cover (10days)	CAT 563	_		Laborer		~	Total for 1 of 4Liners	10 Placement of 24" Select Impacted (20days)	CAT 563		Laborer		Operator 4days	Total for 1 of 4Liners		11 Placement of 36" Select	CAT 563	CAT D6 LGP dozer	_		_			Laborer (5day)	Trencher	133,000 (c.f.)	IOIAL FOR 1	
nga Hada	Level				ı	딭	딭	딭					-	ב ב		OE .							딭	딭	잍	잍	Ð				

PAGE 5 OF 12

s:\estdeptlyo1rebaseline\pbs03\ccpl3\baseline\cpl3 osdf placement fy05.xts

DETAIL ESTIMATE WORKSHEETS

Fluor Fernald, Inc.

DATE: 12-Sep-01
ESTIMATOR: T.WAGNER
LOCATION: FERNALD
TASK NO.: CCPL3

PROJECT: OSDF PLACEMENT FY05
ESTIMATE NO.: C2-2001-05-006 35
CLIENT: DOE
WBS NO.: 1.1.C.D

TOTAL						\$1,170	\$450	\$180	\$700	\$910	\$80	\$960	\$180	\$870		\$5,500	\$2.47525			\$70,100	\$34,036	\$20.180	\$16.180	410,100	004,74	\$13,820	\$47,170	\$39,530				\$91,584	\$146,534.65
_						102	20				\$80									8												80	
EQUIP						\$1.1	\$450	•			₩					\$1,700	\$0.76508			\$70,100												\$28,308	\$45,292.53
MAT'L																																	
s/c																					\$34.036												
LABOR								\$180	\$700	\$910		096\$	\$180	\$870		\$3,800	\$1.71017					\$20 180	\$16.180	67,100	004,74	\$13,820	\$47,170	\$39,530				\$63,276	\$101,242.12
	Equip					116.98	40.98				25.17									1,275													
UNIT	Mat'i																																
COST/UNIT	S/C																				90.00								•				
	Labor				20%														20%														
SS.	Rate				Rate + 20%				24.71					24.71					Rate + 20%			37.85	30.34	20.00	20.02			24.71					
AN-HOURS	Total							7	28	31		32	7	35		141	0.0635					533	533	260	7 2	533	1,600	1,600		٠		2348	3757
MA	Cuit							0.5	2.0	2.2		2.3	0.5	2.5						9		10	-		2 .	<u> </u>	3.0	3.0					
QTY UNIT											卢											h.									L		
QT7						-	11		<u>~</u>	-	<u>ო</u>	5	=	-						5.5	378	378	328	- 2	-	<u>ې</u>	328	378					
OSDF PLACEMENT FY05		12	CAT #1	Placement of Impacted Mat'l	2,222 cy/day avg. 10hrs	CAT D8 dozer	CAT 563 Compactor	_	Laborer	Operator	CAT 330 Trac hoe	Operator	Foreman	Laborer	ICX = \$2.48	Subtotal for 1unit	Unit rates	Double shift 5.5mo in FY06 & FY07	Portable light plants	10 Lights x 5.5m	Survey Crew	Supervisor	Safety	Som O	S 1	Foreman	Operator	Laborer		Double shift Total FY06 & FY07		1Q 37,000 cy	3&4Q 59,200 cy
PPE	Level							d E	ص ص	ď		<u>ا</u>	딭	d G																			

PROJECT: OSDF PLACEMENT FY05
ESTIMATE NO.: C2-2001-05-006 35
CLIENT: DOE
WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

<u> </u>		\$1,160	\$350 \$160	\$700	\$300	\$100	0/0	14.230	\$2,203,830	\$5.708502	\$22,263						
TOTAL		↔							\$2,20	\$5.70	40						
EQUIP		\$1,160	\$350	3	\$300			\$1.970	\$1,026,370	\$2.658570	\$10,368				 		
 									\$1,0	\$2.					 		
MAT'L																	
S/C																	
- H				\$700	\$590	\$100	9	\$2,260	7,460	\$3.049933	\$11,895		-				
LABOR									\$1,17	\$3.0	₩.						
	Equip	165.35	116.98		99.74												
Ę	Matil																
COST/UNIT	S/C																
	Labor	.0					-					•					
	Rate L	Rate + 20%		24.71	14 71	25.91	- -										
IOURS	Total F	Ra		28	24			91	7,566	0.1232	481	 :			 		
MAN-HOURS	Ш			2.0		0.25	<u>;</u>		47	o —						-	
_	Cnit														 		
aty UNIT			<u> </u>			-											
— л															 		
											ن د						
NT FY05		RADE									, cy 3,900 cy						
OSDF PLACEMENT FY05		30VE G	<u>.</u>							unit costs							
OSDF P		& #4 Al	compacto	-	rack hoe		ıcx = \$5.71	r 1unit	21 units	nuit							
		13 CAT #2 & #4 ABOVE GRADE Cell Placement 741 lcy CAT 826	CAT D8 CAT 563 compactor	Laborer	CAT 330 Track hoe	Foreman	IC	Subtotal for 1unit	Total x's 521 units		10 3&4Q						
PPE	Level		<u> </u>	Gm L	2		<u> </u>			i					 		

PROJECT: OSDF PLACEMENT FY05 ESTIMATE NO.: C2-2001-05-006 35

DOE 1.1.C.D CLIENT: WBS NO.:

Fluor Fernald, Inc.

TOTAL		ě	\$350	\$950 \$610	\$520 \$940 \$140		\$3,930	\$161,130	\$27.2917	\$163,750		
EQUIP				\$950			\$1,560	\$63,960	\$10.8333	\$65,000		
MAT'L												
S/C											·	
LABOR	A Company of the Comp		\$420 \$350		\$520 \$940 \$140		\$2,370	\$97,170	\$16.4583	\$98,750		
	Equip			63.28								
COST/UNIT	Maťi							·				
SOO	S/C				:							
	Labor	20%										
ક્ટ	Rate	Rate + 20%	14 29.484 14 24.71		24.71 29.48 25.91							
MAN-HOURS	Total			-	21 32 5		98	3,541		3,598		
	C Dijt		6. 6.		1.00 1.50 0.25							
TIND			בֿב	ָב בֿ בֿ	111							
ατν			5 5	€. £	र र र							
OSDF PLACEMENT FY05		14 CAT #3 Palletized Transite Placement Place pallets (10hr day) 144lcy	mD Operator mD Laborer	Place Fill around & over pallets & grid 1708 cy (1.5day) CAT D6 dozer	OAT 503 Compactor Laborer Operator Foreman	ICY = \$27.29	Subloted = 1 orid	Total times 41 Grids	unit costs	1Q cy 3&4Q 6,000 cy		
PPE	Level		_무		윤윤							

CONTRACTOR - Stated in FY01 DOLLARS

s:wagner/ccpi3\baseline ccpi3 osdf placement fy05.xls

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY05 ESTIMATE NO.: C2-2001-05-006 35 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

Rate + 20% Rate + 20% Rate + 20% 28	LABOR	ST/U	-	MAN-HOURS	UNIT	יו אדם	OSDF PLACEMENT FY05
Rate + 20% S830 S1,990	Equip	S/C Mat'i	Rate Labor	Total	ร็		
28 29.48 \$830 \$1,990 42 \$700 \$1,990 42 \$700 \$1,990 7 \$2.94 \$1470 23 \$4.71 \$560 \$410 43 \$2.51 \$560 \$50 11 \$2.471 \$50 \$50 11 \$2.471 \$2.50 \$50 11 \$2.471 \$2.80 \$50 11 \$2.471 \$2.80 \$50 11 \$2.471 \$2.80 \$50 10,723 \$5.91 \$1.80 10,723 \$1.60 \$2.51 1,014 \$20,964 \$2.577							
28 29.48 \$8930 \$1,990 42 \$706 \$1,990 7 25.91 \$180 \$1470 23 \$24.71 \$560 \$5410 11 \$29.48 \$560 \$560 11 \$24.71 \$70 \$50 11 \$24.71 \$70 \$50 11 \$24.71 \$70 \$70 11 \$24.71 \$25.91 \$50 11 \$24.71 \$25.90 \$50 11 \$24.71 \$25.90 \$51.90 10,723 \$52.91 \$52.90 10,6632 \$11.64671 \$12.51497 1,014 \$20.964 \$22,527			ite + 20%				
28 29.48 \$530 \$1,990 42 \$73.62 \$1,990 42 \$73.62 \$1,990 11 29.48 \$560 \$560 11 29.48 \$501 \$501 11 29.48 \$25.91 \$500 11 24.71 \$70 \$500 11 24.71 \$25.91 \$500 11 24.71 \$25.91 \$500 11 24.71 \$25.01 \$100 11 24.71 \$25.91 \$25.00 10 \$25.91 \$25.91 \$25.91 10 \$25.91 \$25.91 \$25.91 10 \$50.98 \$50 \$50 10 \$50 \$50 \$50 10 \$50 \$50 \$50 10 \$50 \$50 \$50 10 \$50 \$50 \$50 10 \$50 \$50 \$50 10 \$50 \$50 \$50 2 \$50 \$50 \$50 2 \$50 \$50 \$50 3 \$50 \$50 \$50 4 \$50 \$50 \$50 4 \$5							
28 24.71 99.74 \$700 \$1,900 42 7 25.91 \$330 \$410 23 24.71 \$560 \$50 3 25.91 \$70 \$50 11 29.48 \$70 \$50 11 24.71 \$70 \$70 3 25.91 \$25.17 \$70 1 24.71 \$25.0 \$100 2 25.91 \$25.0 \$100 1 24.71 \$25.0 \$100 2 25.91 \$25.17 \$25.0 10,723 \$25.91 \$11.64671 \$12.51497 1,014 \$22,527	\$830		29.48	28		_	
42 59.74 7 25.91 \$1.80 11 29.48 \$180 23 24.71 \$560 3 25.91 \$70 11 29.48 \$280 11 24.71 \$260 3 25.91 \$26.0 11 24.71 \$280 2 25.91 \$26.0 10,723 \$1.30 \$1.50 1,012 \$1.50 \$1.51 1,014 \$20,964 \$20,964			24.71	28		_	
42 7 26.91 73.62 11 29.48 \$180 23 24.71 25.17 11 24.71 \$70 11 24.71 \$2.617 11 24.71 \$2.617 11 24.71 \$2.617 11 24.71 \$2.60 11 24.71 \$2.60 11 24.71 \$2.60 11 24.71 \$2.60 10.723 \$2.50 \$4.180 10.723 \$2.21,730 \$2.26.17 10.723 \$11.64671 \$12.51497 1,014 \$2.25.57	99.74					三	
7 25.91 \$50.048 \$180 \$34.0 23 24.71 \$50.0 \$50.0 \$50 11 29.48 \$330 \$50 11 24.71 \$26.17 \$200 11 24.71 \$26.0 \$100 11 24.71 \$26.0 \$100 11 24.71 \$20.0 \$100 11 24.71 \$20.0 \$100 11 24.71 \$20.0 \$20.0 10.723 \$25.0 \$11.64671 \$12.51497 1,014 \$1.25497 \$22,527	73.62					Ξ.	20 h
11 29.48 \$560 \$560 23 24.71 \$70 \$50 11 29.48 \$330 \$70 11 24.71 \$70 \$100 11 24.71 \$25.91 \$100 11 24.71 \$20.48 \$100 12 25.91 \$20 \$100 188 \$100 \$221/730 \$233,20 10.723 \$221/730 \$233,20 1,014 \$20,964 \$20,964						ᆂ.	
\$23 24.71 \$560 \$560 \$560 \$560 \$560 \$560 \$560 \$560	0814		25.91	_	o 	≥	
23 24.71 \$550 \$56 3 25.91 \$70 \$50 11 29.48 \$330 \$280 11 24.71 \$280 \$100 11 24.71 \$280 \$100 2 25.91 \$210 \$100 10,723 \$25.91 \$238,260 \$100 10,723 \$10,723 \$20,964 \$10,723 1,014 \$20,964 \$20,964 \$22,527	. 4		-				
25 24.71 \$500 \$50 11 29.48 \$280 \$100 11 24.71 \$2.80 \$100 11 24.71 \$2.80 \$100 11 24.71 \$2.80 \$100 10,723 \$2.5.91 \$1.890 \$4.180 10,723 \$1.5.890 \$1.800 \$1.800 1,014 \$2.5.91 \$1.64571 \$1.2.51497 \$1.2.51497	0000		29.48	11	•	눝.	
11 29.48 \$330 11 24.71 12 25.91 18 40.98 \$280 1,380 1,014 1,014 1,014			74.71	53	~i	= .	
11 29.48 \$330 11 24.71 \$2.80 7 29.48 \$280 7 29.48 \$510 10,723 \$50 10,723			-	•	,	ᆂ .	2 h
11 29.48 \$330 \$200 \$100 11 24.71 \$2.591 \$25.07 \$280 \$100 11 24.71 \$29.48 \$20.94 \$10.72 \$10.72 10.723 \$25.91 \$25.91 \$10.72 \$238,260 10.723 \$221,730 \$238,260 \$238,260 1,014 \$20,964 \$22,527 \$22,527	0		25.91	.	o 	٥	
11 24.71 3 25.91 11 24.71 7 29.48 10,723 10,723 10,5632 1,014 1 24.71 25.17 \$280 40.98 \$280 \$210 \$210 \$210 \$210 \$210 \$210 \$210 \$210 \$210 \$210 \$210 \$210 \$210 \$210 \$210 \$221,730 \$	000			,			
11 24.71 \$280 \$100 11 24.71 \$280 \$100 7 29.48 \$40.98 \$510 \$100 10,723 \$25.91 \$13,890 \$238,260 10,723 \$31.50 \$238,260 10,723 \$12.51497 \$1	4330		29.48	- :		Ξ .	8
2 25.91 \$20.91 11 24.71 \$280 7 29.48 \$40.98 \$510 10,723 \$52.17.30 \$238,260 10,723 \$12.51497 \$12.51497 \$12,51497	024		24./1	F (<u>-</u> ,	눝.	
11 24.71 \$280 \$100 7 29.48 40.98 \$210 \$160 2 25.91 \$13,890 \$4,180 10,723 \$221,730 \$238,260 \$238,260 0.5632 \$11.64671 \$12.51497 \$22,527	O/e		75.91	70	o 	E	8
11 24,71 \$280 \$100 7 29,48 40.98 \$210 \$160 2 25.91 \$1,80 \$4,180 \$4,180 10,723 \$221,730 \$221,730 \$238,260 \$12.51497 \$10,164671 \$12,51497 \$22,527							
11 24.71 \$2.80 \$1.20 \$1.60 \$1.00 \$1.						눌	4 h
188 \$50 10.5632 \$25.97 1,014 \$22,527	\$280		24.71	=	7	ځ	
188 \$3,890 \$4,180 10,723 \$221,730 \$238,260 0.5632 \$11.64671 \$12.51497 1,014 \$20,964 \$22,527			29.48			눝.	
188 \$3,890 \$4,180 10,723 \$221,730 \$238,260 0.5632 \$11,64671 \$12.51497 \$12,51497 1,014 \$20,964 \$22,527					•	≥ .	4 Tr
\$221,730 \$238,260 \$11,64671 \$12.51497 \$20,964 \$22,527	OC A		75.91	N	o 	È	
\$221,730 \$221,730 \$11.64671 \$120,964 \$20,964	7						
\$221,730 \$11.64671 \$12.51497 \$20,964 \$22,527	080'04			881			
\$11.64671 \$12.51497 \$20,964 \$22,527	\$221,730			10,723			
\$20,964	\$11.64671			0.5632			
\$20,964							
	\$20,964			1,014			

PROJECT: OSDF PLACEMENT FY05
ESTIMATE NO.: C2-2001-05-006 35
CLIENT: DOE
WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

							- "	-					 	
TOTAL			\$580	\$50 \$350	\$420	\$1,600	\$1,326,400	\$3.5556	\$60,800 \$160,000			•	·	
EQUIP		-	\$580			\$780	\$646,620	\$1.7333	\$29,640 \$78,000					
MAT'L														
S/C			•		9	·								
LABOR				\$50	\$420	\$820	\$679,780	\$1.8222	\$31,160 \$82,000					-
	Equip		116.98	e e										
UNIT	Mati													·
COST/UNIT	S/C													
	Labor	760	2											
.SS	Rate	700C + 01ca	2	25.91										
MAN-HOURS	Total			1.8	14.1	30.0	24839	0.0666	1,139 2,996					
	Si		1.0	0.25	18									
TIND			Ė	2 2 2	Ē									
αTγ			ı, cı	ນເນດ										
OSDF PLACEMENT FY05		16 CAT #2 & #4 At & Below Grade	Placement 1 Grid / shift = 450cy CAT D8	CAT 563 compactor Foreman	ator 707 = \$356	C. Shi hold for 1 mid	Total times 829 orid	unit costs	17,100 cy 45,000 cy					
	9	cAT	Placeme 1 Grid / s CAT D8		Operator		Total		10 3840	I			 	
PPE	Level			G C	<u>Б</u>									

CONTRACTOR - Stated in FY01 DOLLARS

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY05 ESTIMATE NO.: C2-2001-05-006 35 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

																	,						
TOTAL				\$210	\$170 \$50	\$500	\$4,650	600	\$30	\$210	\$2,700	8400	\$160	\$40	\$140	\$4,950		4 12.300	\$246,000	\$19.6800	\$59,040	· .	
EQUIP						\$500	\$2,500	000	200	202	000,13	\$400	\$160			\$2.800		6 6 800	\$136,000	\$10.8800	\$32,640		
MAT'L																							
S/C																							
LABOR				\$210	\$170	OC#	\$2,150		\$30	\$210	\$1,200			\$40	\$140	\$2 150		4 5 500	\$110,000	\$8.8000	\$26,400		
	Equip					99.74		1	47.68				40.98				T						
LINI	Maťi														•								
COST/UNIT	S/C																						
	Labor	%0:														1							
တ္သ	Rate	Rate + 20%		29.48	24.71	18.02			25.91	24.71				25.91									
MAN-HOURS	Total			7	~ 0	N	79		-	8	48				9	0 0	2		4.089	0.327120	981		
Ž	Cnit			1.0	1.0	0.25		,	1.0	2.0				0.25	1.00	1:30							
OTY UNIT						E E			눌불						<u>ا</u> خ	⊥							
ΔTΛ				ຜ	ري 	သ လ			ი ო	6			4 4	4	4.	4							
OSDE PLACEMENT FY05			625 cy / grid Trench method	Excavation 125 cy = 5 hr Operator		Foreman	Total for 5 trenches	Place Thorlum Debris/Soll 1.5' deep	CAT 330 Trakhoe		Total for 5 trenches	Backfill	CAT 330	CAL 303		_	Total for 5 trenches	ICY = \$19.68	Subtotal for 1 grid	unit costs	1Q 3,000 cy	3&4Q - cy	
100	Level			۵		딭			Ç	밑				ב		잍							

CONTRACTOR - Stated in FY01 DOLLARS

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY05
ESTIMATE NO.: C2-2001-05-006 35
CLIENT: DOE

1.1.C.D WBS NO.:

Fluor Fernald, Inc.

_				
TOTAL		\$14,320 \$9,960 \$34,730 \$8,730 \$18,460 \$19,960	\$106,160	
EQUIP				
MAT'L				
S/C		. •		
LABOR		\$14,320 \$9,960 \$34,730 \$8,730 \$18,460 \$19,960	\$106,160	
	Equip			
UNIT	Mati			
COSTAUNIT	S/C			
	Labor			
33	Rate	54.42 37.85 32.99 33.19 28.05 19.31 25.58	33.61	
MAN-HOURS	Total	263 263 1053 263 658 658	3,158	
2	Unit			
FINS		1111 111		
αı		Shared 20.0% 20.0% 40.0% 20.0% 25.0% 25.0% 25.0% ead ead		
OSDF PLACEMENT FY05		Project Staffing Project Manager General Superintendent Superintendent Project Engineer Quality Engineer Safety Engineer Contract Administration In overhead Clerical In overhead	TOTAL	
ITEM	Š	00000000		

CONTRACTOR - Stated in FY01 DOLLARS	
RACTOR - Stated in F	ĕ
CONTRACTOR - Stated in	FY01
CONTRACTOR - Stated	프
CONTRACTOR -	Stated
CONTRACTOR	•
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PROJECT: OSDF PLACEMENT	EMENT FY05	ı,			SITESF	SITE SPECIFIC					DATE:	17-May-01
ESTIMATE NOCZ-2001-05-006 35 CLIENT: DOE WBS NO.: 1.1.C.D	306 36			EFFICIEN	EFFICIENCY/MULTIPLIER ANALYSIS	PLIER ANA	VLYSIS			- • •	LOCATION: TASK NO.:	L.WAGNER FERNALD CCPL3
			9011011111							27/3/200		
PEKCEN OT INTLOENCE	TOENCE OF	E ON CHART MANHOUNS	SYDOUNG NO.	70%	80%	%06	100%	105%	110%	% OF.	WT'D	PROD.
			8									
CRAFT SKILL (NOTE 1)	Poor			FAIR			STD	V.G00D	XCELLEN"	700.00	12.0%	0.12
CRAFT AVAIL.(NOTE 1)		POOR		FAIR			STD			100.0%	8.0%	0.08
CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			%0.06 ***********************************	20.0%	0.18
PLANT ELEVATION		OVER 10,000FT			5,000° TO 10,000 FT		UNDER 5,000 FT			100.0%	5.0%	0.05
WORK SPACE	T III W	II TIDI E SHIFTS.	.,	200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	0.1
WORK WEEK							4-108 / 5-88			100.0%	15.0%	0.15
50 HOUR WORK WEEK	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	IIIII IIIIIIIIIIIII IIIIIIIIIIIIIIIIII		OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS				%0'0 ·	%0.0	•
60 HOUR WORK WEEK		IIIIIIIIIIIIIII IIIIIIIIIIIIII OVE IIIIIIIIIIIIIII IIIIIIIIIIIIII 7 WEE	OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS					0.0%	%0:0	
SHIFTWORK 2ND SHIFT 3RD SHIFT			3RD SHIFT		2ND SHIFT		OR ONE SHIFT ONLY			100.0% 100.0%	3.0%	0.03
PROJECT SIZE					400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		100.0%	4.0%	0.04
PLANT TYPE				REVAMP	REVAMP & NEW	NEW IN EXIST PLT	GRASS ROOTS			90:06	8.0%	0.072
AREA/UNION INFLUENCE	STRONG		MILD		SOME		NONE			40.0%	10.0%	0.04
NOTES											100.0%	91.2%
1. TURNOVER HAS BEEN CONSIDERED	CONSIDERE	Ω			EFFICIENCY		(AS A % OFF CHART MANHOURS)	T MANHOUF	(S)			91.2%
2. FOR EXTERIOR WORK UNLY					MULTIPLIE	R-(TOBE	MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S)	SHART M.H.	'S TO OBTA	IIN SITE M.H	1.8)	1.10

EFFICIENCY FACTORS

PROJECT:

WBS NO.:

OSDF PLACEMENT FY05

CLIENT:

ESTIMATE NO. C2-2001-05-006 35 DOE

1.1.C.D

Fluor Fernald, Inc.

DATE: 17-May-01 **ESTIMATOR: T.WAGNER** LOCATION: FERNALD TASK NO.: CCPL3

EXAMPLE:

STANDARD CHART MANHOURS =

NET

100

EFFICIENCY FACTORS:

SITE SPECIFIC (SEE APPENDIX A)

10.0

S/T = BASE UNIT MANHOURS

OVERTIME PRODUCTIVITY FACTOR (SEE DETAIL WORKSHEET BACK-UP) 0.00% 110

TASK SPECIFIC (confined space,

high elevation, congestion, etc.)

0 110

* PPE SPECIFIC (Based on current data and estimating knowledge)

				PPE LEV	/EL					
		D	Mod.	'D'	Mod.	"C"	С		C+	
PRODUCTIVITY HOURS		MH's	MULTIPUER	MH's	MULTIPLIER	MH's	MULTIPUER	MH's	MULTIPUER	MH's
(ASA%)/ADD MH's	4.00%	4	28.00%	31	66.00%	73	74.00%	81	96.00%	100
(AS A MULTIPLIER)/TOTAL HRS	1.04	114.4	1.28	140.8	1.66	182.6	1.74	191.4	1.96	215.
OTAL MULTIPLIER W/SITE PROD.	1.144		1.408		1.826		1.914		2.156	
NOTE:Use the De in a contan		ctivity Factor of a if the Safety Le			ed.					
(SEE FD FERNALD ES	TIMATING SE	RVICES REFEREN	CE MANUAL	IM-6006 8.10)				·	
Total hours worked days = (PPE) ManD (SEE APPENDIX C	ays to deter	rmine material c	-							

THESE EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY THROUGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL, TO OBTAIN A MORE ACCURATE ACCOUNT OF OVERALL EFFICIENCY IMPACT DUE TO PPE REQUIREMENTS IN HANDLING CONTAMINATED AND HAZARDOUS WASTE.

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT: OSDF PLACEMENT FY05 ESTIMATE NO. C2-2001-05-006 35

CLIENT: DOE 1.1.C.D WBS NO.:

DATE:

17-May-01 ESTIMATOR: T.WAGNER

LOCATION: TASK NO .:

FERNALD CCPL3

PPE MULTIPLIER DEVELOPEMENT

		D	mD	mC	С	C+
CREW SIZE & MAKE-UP	STANDARD	7	7	7	7	7
	WORKER-BUDDY	0	0	0	o	. 0
	SUPPORT TEAM	0	o	0	0	. 0
	TOTAL CREW	7	7	7	7	7
CREW SIZE RATIO		1.00	1.00	1.00	1.00	1.00
AVAILABLE WORK TIME FA	ACTOR	0.96	0.78	0.7	0.7	0.68
PPE LABOR PRODUCTIVIT	Y FACTOR	1	1	0.86	0.82	0.75
NET PRODUCTIVITY RATIO	D	0.96	0.78	.0,602	0.574	0.51
NET PRODUCTIVITY MULT	TPLIER	1.04	1.28	1.66	1.74	1.96

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Selg. Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C. The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

AVAILABLE WORK TIME FACTOR		D	mD	mC	С	C+
TOTAL WORK MINUTES per D 4 200's		600	600	600	600	600
ADDITN'L SITE SAFETY MEETINGS NOT INCLD. IN BA	QUANTITY	1	1	1	1	1
	MINUTES	25	25	25 .	25	25
TOTAL		25	25	25	25	25
PPE DON & DOFFING	QUANTITY	0	0	3	3	3
(ADJUST LEVEL D per WORK PLAN)	MINUTES	0	0	15	15	20
TOTAL			0	45	45	60
WORK BREAKS	QUANTITY	· N/A	2	2	2	2
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	15
TOTAL			30	30	30	30
MOBILIZATION - ROUND TRIPS	QUANTITY	N/A	4	4	4	4
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	15
TOTAL			60	60	60	60
COOLDOWNS PER DAY	QUANTITY	N/A	4	4	4	4
** (4 OUT OF 12 MONTHS) 33.33%	MINUTES	N/A	15	15	15	15
TOTAL			20	20	20	20
AIR TANK REPLACEMENT	QUANTITY	N/A	N/A	N/A	N/A	N/A
	MINUTES	N/A	N/A	N/A	N/A	N/A
TOTAL		·				
AVAILABLE WORK TIME		575	465	420	420	405
AVAILABLE WORK TIME FACTOR		0.96	0.78	0.7	0.7	0.68

NOTE: Adjust Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's. Any other circumstances, over-ride the minutes per day.

^{**} Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances.

HEALTH PHYSICS

PROJECT:

OSDF PLACEMENT FY05

ESTIMATE NO. C2-2001-05-006 35

CLIENT: WBS NO.: DOE 1.1.C.D

17-May-01 **ESTIMATOR: T.WAGNER**

LOCATION: FERNALD

DATE:

TASK NO.: CCPL3

Fluor Fernald, Inc.

PPE"s - PERSONAL PROTECTIVE EQUIPMENT

	UNIT		* NO. C	OF CHANGE OUT	TS PER WORKER	PER DAY
TINU	COST	Man Da	ys (TOTAL HOUR	S worked in PPE's C	iv. by WORK HOURS /	DAY)
IT.		*	MAN DAYS	MAT'L.\$'s	PPE LEVEL	
EA	\$4.46	3	0	\$0	C/C+	
EA	\$4.46	3	0	\$0	C/C+	(DOUBLE PPE)
PR	\$0.24	3	0	\$0	*C/C+=	
PR	\$0.26	3	0	\$0	##C!C+==	
PR	\$1.02	3	0	\$0	** C/C+ =	
PR	\$6.98	3	0	\$0	- C/C+	
	\$17.42	3		\$0		
			\$/MD =			
	EA EA PR PR PR	UNIT COST EA \$4.46 EA \$4.46 PR \$0.24 PR \$0.26 PR \$1.02 PR \$6.98	UNIT COST Man Da ET. * EA \$4.46 3 EA \$4.46 3 PR \$0.24 3 PR \$0.26 3 PR \$1.02 3 PR \$6.98 3	UNIT COST Man Days (TOTAL HOUR TT. * MAN DAYS EA \$4.46 3 0 EA \$4.46 3 0 PR \$0.24 3 0 PR \$0.26 3 0 PR \$1.02 3 0 PR \$6.98 3 0 \$17.42 3	UNIT COST Man Days (TOTAL HOURS worked in PPE's DAYS) EA \$4.46 3 0 \$0 EA \$4.46 3 0 \$0 PR \$0.24 3 0 \$0 PR \$0.26 3 0 \$0 PR \$1.02 3 0 \$0 PR \$6.98 3 0 \$0 \$17.42 3 \$0	UNIT COST Man Days (TOTAL HOURS worked in PPE's Div. by WORK HOURS / EA \$4.46 3 0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$

PPE LEVEL mD: FULL DRESS				MAN DAYS	MATLS's	PPE LEVEL
LT.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIE\$	PR	\$4.46	3	1421	\$19,008	-mC
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	1421	\$1,023	mC
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	1421	\$1,108	mC
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	1421	\$4,347	mC .
SUB-TOTAL		\$5.98	3		\$25,486	
				S/MD =	\$17.94	

SUBCONTRACTOR REQUIRED PURCHASES			QTY. PER WKR.	NO. OF WORKERS	MAT'L.\$'s	PPECEVELS
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	\$12.70	6	8	\$610	D/C/B
APR w/HALF FACE MASK - (1) PER WORKER	EA	\$22.30	. 6	0	\$0	Ø 3C
APR W/FULL FACE MASK - (1) PER WORKER	EA	\$174.00	6	0	\$0	CO
SCBA	EA	\$1,894.00	2	0	\$0	\$ \$ B *
COOL VESTS	EA	\$137.50	6	0	\$0	C/B
THERMO STRIPS	EA	\$50.00	6	0	\$0	C/B:
SUB-TOTAL					\$610	

TOTAL PPE's =

MAT'L.\$'s \$26,100

(FORWARD TO PAGE 2 OF 2)

OTHER PPE'S SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. COSTS OF FD FERNALD SUPPLIED PPE'S, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCURRED BY FD FERNALD AND COSTS ARE NOT INCLUDED AS PART OF PROJECT COSTS AT THIS TIME.

APPENDIX "C"

PROJECT: **OSDF PLACEMENT FY05**

ESTIMATE NO. C2-2001-05-006 35

CLIENT: WBS NO.: DOE 1.1.C.D

DATE:

17-May-01

ESTIMATOR: T.WAGNER LOCATION: FERNALD

TASK NO.: CCPL3

-MEDICAL MONITORING -

IVO MO	NITORING .	LOST	WORKER T	IME for RAD	I WORKERS	ONLY
QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL	
1	4	9	36	\$28.14	\$1,010	
0	4	9	0	\$28.14	\$0	
1	1	9	9	\$28.14	\$250	·
					\$1,260	
				QTY HRS WKR TOTAL HOURS	QTY HRS WKR TOTAL HOURS LABOR RATE 1 4 9 36 \$28.14 0 4 9 0 \$28.14	QTY HRS WKR TOTAL HOURS LABOR RATE TOTAL LABOR \$ 1 4 9 36 \$28.14 \$1,010 0 4 9 0 \$28.14 \$0 1 1 9 9 \$28.14 \$250

RADIATION IN-VITR	O SURVEILLAN	ICE - LOS	T WOR	KER TIME f	or RAD II WO	RKERS ONLY
DESCRIPTION	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR \$
BI-MONTHLY BIOASSAY	6	1	9	54	\$28.14	\$1,520
						,
SUB-TOTAL	•					\$1,520

RANDOM DRUG TESTING

		TESTS	HRS	TOTAL HOURS	AVG. RATE	LABOR \$'s			
		15	2	30	\$28.14	\$800			
ı	NO. OF	TESTING	AVG. NO.	CHANCE/	NO. OF WKRS.	CHANCES	CONSTR		
	WKRS.	DAYS	OF TESTS	DAY	FOR THIS	/DAY FOR TEST	WORKING		
	TESTED	PER YR.	PERDAY	FOR TEST	ESTIMATE	FOR PROJECT	DAYS		
	2340	226	10	0.0042735	16	0.0684	226		

LABOR

	LABOR \$'s THRU
WORK DELAYS CAUSED BY MONITORING 0.0%	SAFETY LABOR \$'s \$1,049,347 \$2,50
	- Company of the Company
· · · · · · · · · · · · · · · · · · ·	LABOR \$'s
WORK DELAYS CAUSED BY RAD CHECKING 0.0%	\$1,049,347
•	
·	TOTAL TOTAL GRAND

\$3,600 \$26,100 \$29,700 (FORWARD TO ESTIMATE SUMMARY SHEET)

TOTAL

TOTAL HEALTH PHYSICS

ACTIVITY DURATIONS

Fluor Fernald, Inc.

PROJECT:

OSDF PLACEMENT FY05

ESTIMATE NO. C2-2001-05-006 35

CLIENT:

DOE

WBS NO .: 1.1.C.D

DATE:

17-May-01

ESTIMATOR: T.WAGNER LOCATION: FERNALD

TASK NO .: CCPL3

	EST.	START	MID .	COMPL.		
ACTIVITY	DATE	DATE	POINT	DATE	ACTIVITY	DURATION
CONSTRUCTION:	01-May-01	⊕01-Oct-04	01-Apr-05	30-Sep-05	12.0	MONTHS
					Ō	MONTHS
TOTAL					12.0	MONTHS

	DATE of EST. to MID-POINT						
	CTIVITY DURATION						
a.	MONTHS						
b.	0	MONTHS					

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. to MID-POINT CTIVITY DURATION				
0	MONTHS			

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

•	-	

ESTIMATE SUMMARY SHEET

PROJECT:

OSDF PLACEMENT FY06

ESTIMATE #: C2-2001-05-06 36

CLIENT:

DOE

Fluor Fernald, Inc.

DATE:

17-May-01 ESTIMATOR: T.WAGNER

LOCATION: FERNALD

WBS #: 1.1.C.D						TASK NO.: C	CPL3
ITEM DESCRIPTION	M/H	RATE	LABOR \$	S/C \$	MAT'L\$	EQUIP.\$	TOTAL \$
Post Award Document (Bonds & Insurance)				\$93,200			\$93,200
Submittals	1,600	ļ	\$80,210				\$80,210
Overhead & Profit		.	1	\$1,194,577			\$1,194,577
Off Hour Dust Control	1		1	\$20,000		1	\$20,000
Control & Management (separate estimate)		ĺ	.	1		1	l
Site Prep	5,520		\$161,580	\$153,450	\$6,230	\$145,468	\$466,728
OMTA Operations (including shutdown)	9,369		\$250,750			\$314,678	\$565,428
Removal of Impacted portion Haul Rd	141		\$3,770	ĺ		\$5,800	\$9,570
Placement of 12" Protective Layer	705		\$18,850			\$9,710	\$28,560
Placement of 24" Select Layer	1,325		\$35,710			\$13,840	\$49,550
Placement of 36" Select Layer	2,312		\$62,790		\$480	\$32,940	\$96,210
Placement of CAT #1 1Q	2,475		\$66,697			\$29,838	\$96,535
Placement of CAT #1 3&4Q	15,060		\$413,712	-		\$190,600	\$604,311
Placement of CAT #2 & #4 Above Grade 1Q		l		1			
Placement of CAT #2 & #4 Above Grade 3&4Q	25,874		\$640,486	I		\$558,300	\$1,198,785
Placement of CAT #3 Palletized Transits 1Q				İ		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.,,
Placement of CAT #3 Palletized Transits 3&4Q	14,394		\$395,000	l		\$260,000	\$655,000
Placement of CAT #5 Friable Asbestos 1Q						. 4200,000	•
Placement of CAT #5 Friable Asbestos 3&4Q	2,985		\$61,728			\$66,329	\$128,057
Placement of CAT #2 @ & Below Grade 1Q	1,438		\$39,360			\$37,440	\$76,800
Placement of CAT #2 @ & Below Grade 3&4Q	6,838	Ì	\$187,142	ļ		\$178,013	\$365,156
Placement of CAT #5 Thorium/Soil Debris 1Q	425		\$11,440			\$14,144	\$25,584
Placement of CAT #5 Thorium/Soil Debris 3&40	425		Ψ11,440			\$17,177	Ψ20,00 1
_						l	
							•
*							
DIRECT FIELD COSTS TOTAL	90,463	\$26.85	\$2,429,224	\$1,461,227	\$6,710	\$1,857,100	\$5,754,261
PM & GEN SUPER, SUP. ENG, QA, & SAFETY	1,707	\$33.62	\$57,400				\$57,400
					,		
	1						
·	1						
		•					
·							
HEALTH PHYSICS	130		\$3,500		\$26,100		\$29,600
					•		<u>.</u>
PAYROLL BURDENS & BENEFITS	1 1		\$1,419,400				\$1,419,400
. ATTOEL BOTOLITO & DEILEI ITO							
SALES TAX	1				\$2,000	\$111,400	\$113,400
INDIRECTELL COSTS TOTAL	1,838		\$1,480,300		\$28,100		\$1,619,800
LE DIRECTAMINDIRECTATION COSTS TOTAL	92,300	\$42.36		\$1,461,227	\$34,810		\$7,374,061
		Ţ			75.,5	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	V. 100 1100
		er east	=Y40/E00	ELARS)	ing order		\$7,374,061
			The state of the s		e po de la companya de la companya de la companya de la companya de la companya de la companya de la companya		*
·		•					
				•			

ESTIMATE PERFORMED BY ESTIMATING SERVICES

	ESTIM	IATE SUMN	MARY SHE	EET		•	
PROJECT:	OSDF PLACEMENT FY06					DATE:	17-May-01
ESTIMATE NO	D.:C2-2001-05-06 36	FACTO	RS			ESTIMATOR:	T.WAGNER
CLIENT: WBS NO.:	DOE 1.1.C.D					LOCATION: TASK NO.:	FERNALD CCPL3
FIXED PRICE	S	LABOR \$	S/C \$	MAT'L. \$	EQUIP. \$	PPE\$	TOTAL \$
DFC DOLLA	ARS	\$2,429,224	\$1,461,227	\$6,710	\$1,857,100	\$26,100	\$5,780,361
IFC COST F	FACTOR	1.6094	· –	1.0000	1.0000	-	
		1.0000	1.0000	1.0000	1.0000	1.0000	
SALES TAX		-	•	1.0600	1.0600	1.0600	
			2	SECTION AND ADDRESS.			
	D COST FACTOR =	1.6094		1.0600	1.0600	1.0600	
Addition of the Personal Property						ALL LESS	
BASE ESTIN	IATE \$'S	\$3,909,524	\$1,461,227	\$7,113	\$1,968,526	\$27,666	\$7,374,055
garage and the contract of the	aggaren. Bakakan Bangari Bali kalangi Bani ngalangan biyak mang ak yarahan 1 sangan na mangalan sa mangalan kalangi kal	Section of the second	Care and the same		للتعتبين	-	management old a second
BASE FACTO	R	1.0000	1.0000	1.0000	1.0000	1.0000	
	Appending to the second of the				10.70 A. 10.00 A. 10.00 A. 10.00 A. 10.00 A. 10.00 A. 10.00 A. 10.00 A. 10.00 A. 10.00 A. 10.00 A. 10.00 A. 10		
	TIMATE FACTOR	1.6094	1.0000	1.0600	1.0600	1.0600	
Live and Live						in the same of the same of the same of the same of the same of the same of the same of the same of the same of	
	T ESTIMATE (FY01 \$)	\$3,909,524	\$1,461,227	\$7,113	\$1,968,526	\$27,666	\$7,374,055
SET 15 17 17 12	and a contract of the second o	and the second second	STATE OF THE PARTY	SALES CONTRACTOR OF THE PARTY O	Charles in page 1. Arrive Contractions	ethernor a strong habertanion	

NOTE:

F THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

•	E	STIMA	TE SUMM	IARY SHE	ET			
PROJECT:	OSDF PLACEMENT FY06						DATE:	17-May-01
ESTIMATE NO.:	C2-2001-05-06 36	DIRE	CT FIELD	COST			ESTIMATOR:	T.WAGNER
CLIENT:	DOE	W /	FACTO	RS			LOCATION:	FERNALD
	1.1.C.D						TASK NO.:	CCPL3
PAY ITEM NO.	DESCRIPTION		LABOR \$	S/C \$	MAT'L. \$ E MAT'L.\$' S)>>	EQUIP. \$	PPE \$	TOTAL \$
1	Post Award Document (Bonds & Insura		(ASSIGN ON I	93200	= NIA1 L. # 3)			
	•			\$93,200				\$93,200
_	Out with the		80210					
2	Submittals		\$129.090			·		\$129,090
							•	
3	Overhead & Profit			1194577				24 424 522
				\$1,194,580				\$1,194,580
4	Off Hour Dust Control			20000				
				\$20,000				· \$20,000
6	Site Prep		161580	153450	6230	145468	2,036.07	
	Site Fieb		\$260,040	\$153,450	\$6,600	\$154,200		\$576,450
	e .			·				
7	OMTA Operations (including shutdown)		250750			314678	3,159.71	\$740,460
			\$403,550			\$333,560	\$3,350	⊅/40,46 0
8	Removal of Impacted portion Haul Rd		3770			5800	47.51	
			\$6,070			\$6,150	\$50	\$12,270
9 .	Placement of 12" Protective Layer		18850			9710	237.53	
3 .	Placement of 12 Protective Layer		\$30,340			\$10,290	\$250	\$40,880
	·			,				
10	Placement of 24" Select Layer		35710			13840	1	670.60
			\$57,470			\$14,670	\$480	\$72,620
11	Placement of 36" Select Layer		62790		480	32940	791.22	
ļ			\$101,050		\$510	\$34,920	\$840	\$137,32
12	Discomont of CAT#4 40		66697			29838	840.45	
12	Placement of CAT #1 1Q		\$107,340			\$31,630		\$139,86
				·				
12	Placement of CAT #1 3&4Q		413711.9352	1		190599.55	• .	6072 20
			\$665,820			\$202,040	\$5,530	\$873,39
13	Placement of CAT #2 & #4 Above Grad						-	
13	Placement of CAT #2 & #4 Above Grad		640485.83			558299.5951	8,070,78	İ
	racement of OAT #2 & #4 Above Grad		\$1,030,780	1		\$591,800	1	\$1,631,14
								·
14	Placement of CAT #3 Palletized Transi		1				•	
			ŀ					
14	Placement of CAT #3 Palletized Transi		395000	1		260000	.,	
	İ		\$635,700			\$275,600	\$5,280	\$916,58
15	Placement of CAT #5 Friable Asbestos							
							1	
15	Placement of CAT #5 Friable Asbestos		61727.54491 \$99,340	1		66329.3413 \$70,31	•	\$170,47
			\$55,540			4,0,51	4021	7
16	Placement of CAT #2 @ & Below G		39360	1	1	3744		
		•	\$63,340			\$39,69	0 \$530	\$103,56
16	Placement of CAT #2 @ & Below G		187142.2222	2		178013.333	3 2,358.18	
			\$301,180			\$188,69	1	
47	Discount of OAT HE TO		1					
17	Placement of CAT #5 Thorium/Soil Deb		\$18,410	1		1414 \$14,99	,	
			1			\$14,55	1	6.
17	Placement of CAT #5 Thorium/Soil Deb						-	
TOTAL DIPE	CT FIELD COSTS W/FACTORS		(FY01 DOLL	ARS)				\$7,377,7

Cost Allocation for Baselir	ne Entry
1 Post Award	\$93,200
2 Submittal	\$129,090
Subtotal	\$222,290
3 Overhead & Profit	\$1,194,580
4 Off Hour Dust Control	\$20,000
6 Site Prep	\$576,450
Subtotal	\$596,450
7 OMTA Operations (including shutdown)	\$740,460
8 Removal of Impacted portion Haul Rd	\$12,270
Subtotal	\$752,730
9 Placement of 12" Protective Layer	\$40,880
10 Placement of 24" Select Layer	\$72,620
11 Placement of 36" Select Layer	\$137,320
12 thru 17 Quarter 1	\$276,970
12 thru 17 Quarter 3 & 4	\$4,083,950
Grand Total	\$7,377,790
Verify old total Match %	\$7,377,790 100.00%
Match %	100.00%

OSDF PLACEMENT FY06 PROJECT:

ESTIMATE NO.: C2-2001-05-06 36 CLIENT:

1.1.C.D WBS NO.:

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Fluor Fernald, Inc.

DETAIL ESTIMATE WORKSHEETS

ESTIMATOR: T.WAGNER 17-May-01 LOCATION: FERNALD CCPL3 TASK NO.: DATE:

\$80,210 \$20,000 \$466,728 \$565,428 \$9,570 \$96,210 \$96,535 \$93,200 \$28,560 \$49,550 \$638,348 \$1,198,785 \$655,000 \$128,057 \$76,800 \$365,156 \$25,584 \$1,194,577 TOTAL \$145,468 \$5,800 \$9,710 \$13,840 \$32,940 \$260,000 \$29,838 \$190,600 \$558,300 \$66,329 \$37,440 \$178,013 \$14,144 \$314,678 EQUIP \$6,230 \$480 MATL \$93,200 \$20,000 \$153,450 \$1,194,577 \$80,210 \$250,750 \$187,142 \$161,580 \$35,710 \$62,790 \$413,712 \$395,000 \$61,728 \$39,360 \$3,770 \$18,850 \$66,697 \$640,486 LABOR Equip Matil COST / UNIT S/C Labor Rate MAN-HOURS 2,475 1,600 9,369 705 1,325 2,312 2,985 1,438 6,838 425 5,520 25,874 14,394 141 Total 5 LIND Σď Placement of CAT #28#4 @ & Below Grade 3&4Q Placement of CAT #5 Thorlum/Soll Debris 3&4Q Placement of CAT #28#4 @ & Below Grade 10 Placement of CAT #2 & #4 Above Grade 3&4Q Placement of CAT #3 Palletized Transits 3&40 Placement of CAT #5 Thorlum/Soil Debris 10 placement of CAT #5 Friable Asbestos 3&4Q Placement of CAT #2 & #4 Above Grade 1Q Placement of CAT #3 Palletized Transits 10 Post Award Document (Bonds & Insurance) Control & Management (separate estimate) Placement of CAT #5 Friable Asbestos 1Q OMTA Operations (including shutdown) Removal of Impacted portion Haul Rd Placement of 12" Protective Layer Placement of 24" Select Layer Placement of 36" Select Layer SUMMARY placement of CAT #1 3&4Q Placement of CAT #1 1Q Off Hour Dust Control Overhead & Profit Submittals Site Prep ITEM

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PROJECT: OSDF PLACEMENT FY06 ESTIMATE NO.: C2-2001-05-06 36 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

		ΩTY	QTY UNIT	Ž	MAN-HOURS	S		COST/UNIT	UNIT		LABOR	s/c	MAT'L	EQUIP	TOTAL
				Crit	Total	Rate	Labor	S/C	Matil	Equip					
	A A Local Desired														
onds &	Ronds & Insurance (calculated on summary)	1	S					-						-	
ubmi	Submittals fy09 use 6ea 30 with 30 & 10 for tech														
Plans allowance	Plans allowance	100	e e	50.0	1000	50.13 50.13					\$30,080 \$50,130				\$50,130
			1		1600	1 1					\$80,210				\$80,210
off Hor	Off Hour Dust Control														
of Hour	Off Hour Dust Control allowance	1	S					20,000				\$20,000			\$20,000
ontrol &	Control & Management (separate estimate)														
								-			·				
							· · ·				·				
								_			·				
								-						-	
						•									
				-		-									

s:\wagner/ccpi3\baseline ccpi3 osdf placement fy06.xds

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY06 ESTIMATE NO.: C2-2001-05-06 36 CLIENT: DOE WBS NO.: 1.1.C.D

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TOTAL			\$75,400	\$80,440	\$44,690	\$3.490		\$1.390	\$1,660	\$1,010	\$780	\$1,050	\$620	#380	000	066,14	4030	4,000	91,990	9130	4,14	\$3,400	\$1,390	002,14	60 00	060'34	04.69 460	004,0014	\$22,840		(2/11/2/4)
EQUIP			\$75,400	0 N't		\$1.000				\$1,010			000	085\$				000	088'14	64 470	0,4,14			•							(String)
MAT'L								\$600			\$780				:				6	08.4		\$3,400		007,14							0.8 (3.9 8.0)
S/C														,													0.7	4103,400			(a) (sabe)
LABOR				\$80,440	\$44,690	\$2.490		\$1,390	\$1,660			\$1,050	\$620		000	\$1,390	\$830	00/\$					\$1,390		Ç	060,7¢			\$22,840		1318181
	Equip		3,770	12.55		100 00				25.17			1	25.17					99.74	0	73.62			•							
AUNIT	Matil							0.30			2.50									15.50		2.83		32.00							
COSTAUNIT	S/C						'			-																		153,450			
	Labor	%0:																													
	Rate	 Rate + 20%		29.48	29.48	20.48	7.9.40	24.74	20.48	2		24.71	29.48		1	24.71	29.48	24.94					24.71		i	24.71			30.00		
MAN-HOURS	Total			2728	1516	a a	8	r G	0 4	3		42	27		1	20	28	78					29			82			761		old)
2	a Fig		~ ~	7 -			9	7				7	-	-		7	-	-		-	-		2		,	~			18		
TIN			_	žž			Ξ	<u>=</u> }			ea	녿		È		녿				.		=		ea		È		<u>ත</u>	È		Test.
ΔŢ			10	2,559	1,075	Ş	2	2,000	5 4	5 4	312	15	15	15		2	2	20	2	12	20	1,200	20	တ္တ	. !	္က		_	30		S. L. Silvery
OSDF PLACEMENT FY06		6 SITE PREP Dust Control	CAT 613 Water wagon (2ea)		Operator (5 months)	Site Prep	Mobilization of equipment			Operator CAT 416 backhoe	Straw bales			CAT 416 backhoe	Install check dams/SIDs	Laborer	Operator		CAT 330 TracHoe	Type D Rip Rap	Haul Truck	Construction/RAD fencing 4' wire w/ p	Laborer	Install const/grid signage	Site prep	Laborer	Survey	Survey crew	Training	Training based on HithPhys Sheet	
PPE	Level			. 1	들			(<u>۾</u>	<u> </u>		Om O	윤			딭	DE DE	<u>E</u>					٦			딭					

PAGE 4 OF 12

CONTRACTOR - Stated in FY01 DOLLARS

ESTIMATE WORKSHEETS DETAIL

Fluor Fernald, Inc.

OSDF PLACEMENT FY06

ESTIMATE NO.: C2-2001-05-06 36

PROJECT:

1.1.C.D

WBS NO.: CLIENT:

ESTIMATOR: T.WAGNER 17-May-01 LOCATION: FERNALD

CCPL3

TASK NO.:

TOTAL

EQUIP

MAT'L

S/C

LABOR

CO\$T/UNIT

\$164,420 \$121,931 \$57,346 \$59,600 \$55,060 \$20,740 \$19,770 \$37,710 \$22,500 \$6,350 \$1,990 \$2,340 \$1,470 \$1,660 \$1,410 \$700 \$9,570 \$565,428 \$59,600 \$55,060 \$20,740 \$121,931 \$1,990 \$2,340 \$1,470 \$5,800 \$314,678 \$37,710 \$22,500 \$1,660 \$1,410 \$700 \$19,770 \$6,350 \$3,770 \$164,420 \$250,750 107.95 99.74 37.57 73.62 34.62 99.74 116.98 73.62 함 Mati 5,075.0p S/C Labor Rate + 20% Rate + 20% 29.92 21.59 20.59 24.57 30.00 29.48 24.94 24.71 Rate MAN-HOURS Total 916 1,832 916 5,495 212 9,369 ž ATY UNIT ě 2 2 2 2 눌 * * * * * * * * * * * * * 1,949 1,656 1,656 22 8 552 552 552 650 650 650 888888 7 OMTA Operations (including Shutdown) 7 A apply to ea fiscal yr of FY04 - FY08 7 B Special for Lighting FY06 & FY07 OMTA Operations (including shutdown) Purchase of office trailer (8x12) FY04 CAT 973 Track Loader/4way bucket OMTA Operations thru shutdown 8 Removal of Impacted portion of OSDF Haul Rd (2 DAYS X 7) OSDF PLACEMENT FY06 Training & Hiring of 5 additional 7 B Special for FY04 - FY08 fraining based on HithPhys Sheet CAT 330 Excavator/grappler ROB Truck (Site Owns) personnel for night shift period (approx. 3 mo) Lighting double shift CAT 330 excavator CAT TH83 (9 mo) mD Teamster (9 mo) Foreman (3 mo) Operator (3 mo) mD Laborer (3 mo) mD Operator (3 mo) CAT D8 dozer Tractor (farm) TOTAL FOR 1 Haul Truck 2x5.5mx4 Teamster **Fraining** Operator Laborer PPE Ð 잍 딭

PAGE 5 OF 12

\$9,750 \$17,440 \$4,880 \$29,100 \$24,390 \$5,820 \$480 \$3,480

\$9,750 \$17,440 \$4,880

40.98 73.26 40.98

⊰ate + 20%

11 Placement of 36" Select

Total for 1 of 4Liners

Operator 4days

딭

22,000 ICY

CAT 563 compactor (14day)

Operator (28day) Laborer (28day) Operator (14day)

문문문

Laborer (5day)

Trencher

Silt Fence

문문

TOTAL FOR {33,000 ICY}

CAT 563 CAT D6 LGP dozer

29.48 24.71 29.48

987 987 197

2.5

444444444

238 238 119 280 280 140 1,600 42.5

\$96,210

\$32,940

\$480

\$62,790

\$870

\$480

\$3,480

20.48

0.30

24.71

4

2.0

2,312

\$29,100 \$24,390 \$5,820

\$49,550

\$13,840

\$1,660

29.48

26

,325

\$35,710

DETAIL ESTIMATE WORKSHEETS

Fluor Fernald, Inc.

OSDF PLACEMENT FY06

ESTIMATE NO.: C2-2001-05-06 36

PROJECT:

1.1.C.D

WBS NO.: CLIENT:

17-May-01 DATE:

ESTIMATOR: T.WAGNER LOCATION: FERNALD CCPL3 TASK NO.:

EQUIP

MAT'L

S/C

\$6,970 \$12,450 \$17,420 \$16,630 \$1,390 \$1,660 \$3,480 \$6,230 \$1,830 \$8,710 \$8,310 \$28,560 TOTAL \$3,480 \$9,710 \$6,970 \$12,450 \$1,390 \$1,830 \$8,710 \$8,310 \$17,420 \$18,850 LABOR 40.98 73.26 40.98 73.26 40.98 Equip Matil COST/UNIT S/C Labor Rate + 20% Rate + 20% 25.91 24.71 29.48 24.71 29.48 Rate MAN-HOUR\$ 705 564 71 353 282 Total 705 Cnit 2.5 2.5 2.0 1.0 1.0 TINU YTO * * * * * * * * * * * 170 170 200 200 34 40 10 Placement of 24" Select Impacted OSDF PLACEMENT FY06 9 Placement of 12" Impacted protection cover (10days) CAT 563 compactor 4days Total for 1 of 4Liners CAT 563 CAT D6 LGP dozer CAT 563 CAT D6 LGP dozer 11,000 ICY (20days) Foreman Operator Operator Laborer Laborer 무 문 문 문문 PPE Level

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shwamerkeep13\baseline cep13 osdf placement fy08.xls

Fluor Fernald, Inc.

PROJECT: OSDF PLACEMENT FY06 ESTIMATE NO.: C2-2001-05-06 36 CLIENT: DOE

1.1.C.D

WBS NO.:

DATE: 17-May-01
ESTIMATOR: T.WAGNER
LOCATION: FERNALD
TASK NO.: CCPL3

TOTAL EQUIP S/C LABOR ATY UNIT MAN-HOURS OSDF PLACEMENT FY06 PPE

Ţ	COL LEAGEMENT TOO		_											
Level			Ğ Ö	Total	Rate	Labor	S/C	Mat'l	Equip					
	12									,				
	CAT #1													
	Placement of Impacted Mat'i					-	•							
	2,222 cy/day avg. 10hrs				Rate + 20%	%								
	CAT D8 dozer	10 hr							116.98	-			\$1,170	\$1,170
	CAT 563 Compactor								40.98	-			\$420	4450
딭	Foreman	10 h	0.5	7	25.91					\$180				\$180
Ð	Laborer	10	2.0	28	24.71					\$700		•		\$700
Q Q	Operator		2.2	3	29.48					\$910			6	0164
	CAT 330 Trac hoe								25.17	-			08\$	\$80
<u>ا</u>	Operator		2.3	32	29.48					\$960				9998
Ð		10 hr	0.5	7	25.91					\$180				\$180
E C			2.5	35	24.71					\$870				\$870
				-										
	Subtotal for Tunit			141						\$3,800			\$1,700	\$5,500
	lint rates			0.0635				-		\$1.71017			\$0.76508	\$2.47525
	Double shift 5.5mo in FY06 & FY07					30%							•	
_	Portable light plants				200	~							-	001
	10 Lights x 5.5m	_	5				-		1,275				\$70,100	\$70,100
	Survey Crew	378 hr					90.00				\$34,036			\$34,036
	Supervisor		1.0	533	97.85					\$20,180	-			\$20,180
	Safety		1.0	533	30.34					\$16,180				\$16,180
_			0.5	267	28.05					\$7,480				\$7,480
			1.0	533	25.91					\$13,820			•	\$13,820
	Opposite		3.0	1.600	29.48			-		\$47,170				\$47,170
	Caborer	378 hr	3.0	1,600	24.71					\$39,530				\$39,530
	Describe at Hatel EVAR & EVAT			5 066						\$144,360	\$34,036		\$70,100	\$248,496
	Couple Silinc Total F 100 or F 107						1	-						
	1Q 39,000 cy 3&4Q 157,500 cy			2475 15060						\$66,697 \$413,711.94			\$29,838 \$190,599.55	\$96,535 \$638,347.85
		-			1					•				
					-									

Fluor Fernald, Inc.

PROJECT: OSDF PLACEMENT FY06 ESTIMATE NO.: C2-2001-05-06 36 CLIENT: DOE 1.1.C.D

DATE: 17-May-01
ESTIMATOR: T.WAGNER
LOCATION: FERNALD
TASK NO.: CCPL3

TOTAL		\$1,160	\$300 \$300	\$100 \$100 \$870	\$4,230	\$2,203,830	\$3.70850Z			
EQUIP		\$1,160 \$350	\$300		\$1,970	\$1,026,370	\$2.6585/U			
MAT'L										
s/c										
LABOR			\$700	\$590 \$100 \$870	\$2,260	\$1,177,460	\$3.049933 \$640,486			
	Equip	165.35	40.98 99.74							
COSTAUNIT	Mat'i									
-soo	S/C		· · · · · · · · · · · · · · · · · · ·							
-	Labor	%0 <u>7</u>								
\$2	Rate	Rate + 20%		24.71 1 25.91 5 24.71						
MAN-HOUR\$	Total			24 4 35	- 16	47,566	0.1232	<u></u>	:	
	- Cnit		2.0	1.7 0.25 2.5						
TIND			4 0 c	0 T 0			,			
710			~ ··							
OSDE DI ACEMENT EVOS		3OVE GRADE 1 ley	-				unit costs - cy 210,000 cy			
		13 CAT #2 & #4 ABOVE GRADE Cell Placement 741 lcy CAT 826 CAT D8	CAT 563 compactor Laborer CAT 330 Track hoe		ICY = \$5.71 Subtotal for limit	Total x's 521 units	. unit c 10 3840			
200	Leve		Дш	문문문						

DACE 7 OF 12

State of the EVALUATION OF THE

DETAIL ESTIMATE WORKSHEETS

Fluor Fernald, Inc.

PROJECT: OSDF PLACEMENT FY06 ESTIMATE NO.: C2-2001-05-06 36

DOE 1.1.C.D

CLIENT: WBS NO.:

TOTAL			\$420 \$350	\$950 \$610 \$520 \$940 \$140		\$3,930 \$161,130	\$27.2917	\$655,000	
EQUIP				\$950 \$610		\$63.960	\$10.8333	\$260,000	
MAT'L									
s/c			· .	· ·					
LABOR			\$420	\$520 \$940 \$140		\$2,370	\$16,4583	\$395,000	
	Equip			63.28					
LINIT	Mati								
COSTAINIT	S/C		-						
	Labor	50%					·		
	Rate	Rate + 20%	29.484	24.71	6.03				
MAN-HOURS	Total		4 4	21 32		986	1	14,394	
W.	Cuit		0.1	1.50	67.0				
FINE			보보	נבבב					
2	3		5 6	2 2 2 2 2 2 1 2 1 1 1 1 1 1 1 1 1 1	2				
	OSDF PLACEMEN I TTO	14 CAT #3 Palletized Transite Placement	Piace pallets (10hr day) 144lcy Operator Laborer		Foreman ICY = \$27.29	Subtotol = 1 grid	Total times 41 Grids unit costs	1Q - cy 3&4Q 24,000 cy	
	PPE		을 <u></u>	DE DE	<u>e</u>	L			

DEIA	

ESTIMATE WORKSHEETS

Fluor Fernald, Inc.

DATE: 17-May-01
ESTIMATOR: T.WAGNER
LOCATION: FERNALD
TASK NO.: CCPL3

PROJECT: OSDF PLACEMENT ESTIMATE NO.: C2-2001-05-06 36 CLIENT: DOE WBS NO.: 1.1.C.D

7	ſ			\$830	\$700	9 6	9 9	\$410	φ18Ω	ç	0000	0000	0.00	2	ç	9220	9 6	2	 \$100	\$280	0174	0014	2	٠.	2	8	89	
TOTAL				\$8	25	\$1,990	\$1,470	A	- -	£	9 6	n e	<i>.</i>	A		9 G	7 6	**	≈	\$2	7 6	- 6	1)		\$8,070	\$459,9	\$24.16168	\$128,057
EQUIP						\$1,990	\$1,470	\$410				6	nce						\$100		4	001.		•	\$4,180	\$238,260	\$12.51497	\$66,329
MATIL													:															
S/C					•	•															•							
LABOR				\$830	\$200				\$180	000	0000			0/\$	000	\$330	\$280	0/#		\$280			06\$,	13,890	\$221,730	\$11.64671	\$61,728
	Equip					99.74	73.62	20.48					25.17						25.17			40.98						
COST/UNIT	Mat'i																											
COST	S/C																		•									
	Labor		 %																									
S	Rate		Rate + 20% 		24.71				25.91			24.71		25.91			_	25.91		24.71			25.91					
MAN-HOUR\$	Total				28		42		^			23	•	ന				e e		*	_		2		188	10,723	0.5632	2,985
Σ	Cnit			1.0	1.0		1.50		0.25		~	2.00		0.25		1.00	1.00	0.25		2.00	1.25		0.25					
TIND					غ :							È				E				ᆂ								
ΛTΩ				20	20	20	20	20	20		∞	∞	7	∞		∞	.	∞	4	4	4	4	∞					-
OSDF PLACEMENT FY06		15 CAT#5	Friable Asbestos 334cy		Caborer		· OSI	Trencher	Foreman	Placement	Operator	Laborer	CAT 416 BkHoe	Foreman	Trench	Operator	Laborer	Foreman	CAT 416 BKH0e	Laborer	Operator	CAT 563 compactor	Foreman	ICX = \$24.16	Subtotal for 1 orid	Total times 57 grids	unit costs	 5,300
PPE	Level			2	5											9	ē			Om C	d D					_		

PROJECT: OSDF PLACEMENT FY06 ESTIMATE NO.: C2-2001-05-06 36 CLIENT: DOE

1.1.C.D

WBS NO.:

Fluor Fernald, Inc.

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닐				\$580	\$20	\$350	₩		\$1,600	42 555		\$76,800 \$365,156						
TOTAL		••							25	701	÷	\$36						
										L				·		 		
۵				\$580	007 \$				\$780	64 7333	667	\$37,440 \$178,013						
EQUIP									664	9	9	\$3. \$17						
									\perp	1						 ····	 	
MAT'L													,					
Ā																		1
				-,				•	十	T						 		
S/C																		1
_																 	 	
Ä					\$50	\$350	\$420		\$820	40/8,/00	9770	\$39,360 \$187,142						
LABOR									100	9	-	\$3 \$18						
	Equip			116.98	40.98													
	ш						,		\downarrow	4							 	
F	Mati																	
COST/UNIT									\dashv	#						 	 	=
8	S/C								-									
	L	<u> </u>							+	+						 		
	Labor		%															
_	Rate	·	Rate + 20%		25.91	24.71	29.48			1								
- S	8		Rat								-					 	 	
호	Total	l				14.1	14.1		30.0	4836	0.0666	1,438 6,838						
MAN-HOUR\$	۲									7	o 					 		
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9		epg.							ĺ			21,600 cy 102,700 cy		•				
OSDF PLACEMENT FY06		× Gr										21,600 102,700						
EME		Belo									so.							
PLAC		At &		ģ	ᅙ		9	90	و.	된	unit costs							
SDF		# 1		t = 45	трас		-	ICK = \$5.56	1 g	829 g	S							
		16 CAT #2 & #4 At & Below Grade	Placement	1 Grid / shift = 450cy CAT D8	CAT 563 compactor	nan Te	ator	ğ	Subtotal for 1 grid	Total times 829 grid		ď		٠				
		6 TA	Place	1 Grid / s CAT D8		Foreman			35	Total		10 3840						
n d d	1 0/0				(들	GE.											

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY06 ESTIMATE NO.: C2-2001-05-06 36

CLIENT:

1.1.C.D WBS NO.:

Fluor Fernald, Inc.

TOTAL						6240	9410	024	900	44 650	2001		\$300	\$30	\$2 700	42,100		\$400	\$160	840	\$140	\$4.050	44,900		\$12,300	\$246,000	\$19.6800	\$25,584	
EQUIP .							_		0034	\$2,500	000170		\$300		\$4 500	000,10		\$400	\$160		-	£2 800	92,000		\$6,800	\$136,000	\$10.8800	\$14,144	
MATL							*				-	-										1							
S/C						-																+							
LABOR						0.50	\$210	0/14	00%	£2 1E0	\$4,130			\$30	\$210	002,14				\$40	\$140	\$250 62 1E0	92,130		\$5,500	\$110,000	\$8.8000	\$11,440	
	Equip								,	99.74			99.74			1		99.74	40.98						٠	·			
TINI	Mati									Ì	1						-					1	1						
COST/UNIT	S/C																												
	Labor	%								+	+			•	1	1					<u>-</u>	1	1				·		
"	Rate	 Rate + 20%					29.48	24.71	25.91					25.91	24.71					25.91	24.71	29.48							
N-HOURS	Total					1	7	_	7	F	2			-	8	\$				_	9 0	Σ F	2		204.5	4,089	0.327120	425	
MA	Unit						0.	0.	0.25	1	1		1.0	0.25	2.0	1		-		0.25	9.5	1.30	1			-	<u>-</u>		
TIND									눌.	- }			Ė	Ė	È			<u> </u>	Ė	Ė	훋.	E							
ATY UNIT							3	2	3	5			က	9	3			4	4	4	4.	4							3
PPE OSDF PLACEMENT FY06		17 CAT #5	Thorium / Thorium Soil Debris	625 cy / grld	Trenchi method	Excavation 125 cy = 5 hr	mD Operator	mD Laborer	mD Foreman	CAT 330 Trakhoe	Total for 5 trenches	Place Thorlum Debris/Soll 1.5' deep	CAT 330 Trakhoe		mD Laborer	Total for 5 trenches	Backfill	CAT 330	CAT 563	mD Foreman		mD Operator	Total for 5 trenches	ICY = \$19.68	Sublolal for 1 orid	Total times 20 grids	unit costs	1Q 1,300 cy 384Q - cy	

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY06 ESTIMATE NO.: C2-2001-05-06 36 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

_		00000	lo l	
TOTAL		\$7,740 \$5,390 \$18,780 \$4,720 \$9,980 \$10,790	\$57,400	
EQUIP				
MAT'L				
S/C		•		
LABOR		\$7,740 \$5,390 \$18,780 \$4,720 \$9,980 \$10,790	\$57,400	
	Equip			
UNIT	Mati			
COSTAUNIT	S/C			·
	Labor			
38	Rate	54.42 37.85 32.99 33.19 28.05 1 30.34 1 9.31 25.58	33.62	
MAN-HOURS	Total	142 142 569 142 356 356	1,707	
_	Unit			
TINO		2525E		
ΩTΛ		Shared 20.0% 20.0% 40.0% 20.0% 25.0% 25.0% 25.0% ead ead		
M OSDF PLACEMENT FY06		Project Staffing Project Manager General Superintendent Superintendent Project Engineer Quality Engineer Safety Engineer Contract Administration/ Schedulen overhead Clerical	TOTAL	
ITEM	ģ	00000000		

PROJECT: OSDF PLACEMENT	EMENT FY06	· ·			SITESP	SITE SPECIFIC					DATE: 17-May-01 ESTIMATOR: TWAGNER	17-May-01 T WAGNER
ESTIMATE NOCZ-2001-05-08 36 CLIENT: DOE WBS NO: 1.1.C.D	95 9			EFFICIEN	ICY / MULTI	EFFICIENCY/MULTIPLIER ANALYSIS	rLYSIS				LOCATION: 1	FERNALD CCPL3
PERCENT OF INFLUENC		E ON CHART MANHOURS	NHOURS									
		%09	%09 _.	70%	%08	%06	100%	105%	110%	7 % OF NFLUENCE	WT'D VALUE	PROD. RESULT

CRAFT SKILL (NOTE 1)	POOR			FAIR			STD	V.G00D	XCELLENT	1000%	12.0%	0.12
CRAFT AVAIL.(NOTE 1)		Poor		FAIR			STD			100.0%	8.0%	0.08
CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			%0.06	20.0%	0.18
PLANT ELEVATION		OVER 10,000FT			5,000° TO 10,000 FT		UNDER 5,000 FT			100.0%	2.0%	0.05
WORK SPACE	MULT	ULTIPLE SHIFTS-	.,	200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	0.1
WORK WEEK							4-10s / 5-8s			~~ 100.0%	15.0%	0.15
50 HOUR WORK WEEK	IIII MOLTIP	IIIIIIIIIIIIIIII IIIIIIIIIIIIII IIIIII		OVER. 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS				%0°0%	%0.0	•
60 HOUR WORK WEEK		ANTONIANA ANTONIANA ANTONIANA ANTONIANA	OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS					0.0%	%0.0	
SHIFTWORK 2ND SHIFT 3RD SHIFT			3RD SHIFT	·	2ND SHIFT		OR ONE SHIFT ONLY			100 0% 100 0%	3.0%	0.03
PROJECT SIZE					400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		100.0%	4.0%	0.04
PLANT TYPE				REVAMP ONLY	REVAMP & NEW	NEW IN EXIST PLT	GRASS			90.0%	8.0%	0.072
AREA/UNION INFLUENCE	STRONG		אורם		SOME		NONE			40.0%	10.0%	0.04
NOTES							٠				100.0%	91.2%
1. TURNOVER HAS BEEN CONSIDERED	CONSIDERE	e			EFFICIENCY		(AS A % OFF CHART MANHOURS)	T MANHOUR	(S)			91.2%
2. FOR EXTERIOR WORK ONLY	ONLY				MULTIPLIE	R - (TO BE	MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S)	CHART M.H.	S TO OBTA	IN SITE M.	H.'S)	1.10

APPENDIX "A"

EFFICIENCY FACTORS

PROJECT: **OSDF PLACEMENT FY06** ESTIMATE NO. C2-2001-05-06 36

CLIENT: WBS NO .: DOE 1.1.C.D

Fluor Fernald, Inc.

DATE: 17-May-01 **ESTIMATOR: T.WAGNER** LOCATION: FERNALD TASK NO.: CCPL3

EXAMPLE:

STANDARD CHART MANHOURS = NET 100 **EFFICIENCY FACTORS:** SITE SPECIFIC (SEE APPENDIX A) S/T = BASE UNIT MANHOURS 110

OVERTIME PRODUCTIVITY FACTOR (SEE DETAIL WORKSHEET BACK-UP) 110

TASK SPECIFIC (confined space, high elevation, congestion, etc.) 110

PPE SPECIFIC (Based on current data and estimating knowledge)

				PPE LEV	ÆL.					
		D	Mod.	'O'	Mod.	"C"	C		C+	
PRODUCTIVITY HOURS		MH's	MULTIPLIER	MH's	MULTIPUER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's
(ASA%)/ADDMH's	4.00%	4	28.00%	31	66.00%	73	74.00%	81	96.00%	106
(AS A MULTIPLIER)/TOTAL HRS	1.04	114.4	1.28	140.8	1.66	182.6	1.74	191.4	1.96	215.6
OTAL MULTIPLIER W/SITE PROD.	1.144		1.408		1.826		1.914		2.156	
NOTE: Use the De	fault Produ	tivity Factor of	'mC' for wo	orking						
		a if the Safety Le		-	ed.					•
· 1		·		:						
(SEE FD FERNALD ES	TIMATING SE	RVICES REFEREN	CE MANUAL	IM-6006 8.10	}					
Total hours worked	in a specif	ic PPE level divi	l ded by 10 h	our working						
days = (PPE) ManDa	-		-		ĺ					
(SEE APPENDIX C	•									
· ·										
	11.0	Man Days	14.0	Man Days	18.0	Man Days	19.0	Man Days	22.0	Man Days
									1	

THESE EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY THROUGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL, TO OBTAIN A MORE ACCURATE ACCOUNT OF OVERALL EFFICIENCY IMPACT DUE TO PPE REQUIREMENTS IN HANDLING CONTAMINATED AND HAZARDOUS WASTE.

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT:

ESTIMATE NO. C2-2001-05-06 36

CLIENT: WBS NO .:

DOE 1.1.C.D

OSDF PLACEMENT FY06

DATE:

17-May-01

LOCATION:

ESTIMATOR: T.WAGNER FERNALD

TASK NO.:

CCPL3

PPE MULTIPLIER DEVELOPEMENT

		D	mD	mC	С	C+
CREW SIZE & MAKE-UP	STANDARD	7	7	7	7	7
	WORKER-BUDDY	. 0	o	o	0	C
	SUPPORT TEAM	0	0	0	o	C
	TOTAL CREW	7	7	7	7	7
CREW SIZE RATIO		1.00	1.00	1.00	1.00	1.00
AVAILABLE WORK TIME FA	ACTOR	0.96	0.78	0.7	0.7	0.68
PPE LABOR PRODUCTIVIT	Y FACTOR	1 1	1	0.86	0.82	0.75
NET PRODUCTIVITY RATIO)	0.96	0.78	0.602	0.574	0.51
NET PRODUCTIVITY MULT	IPLIER .	1.04	1.28	1.66	1.74	1.96

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Selg. Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C. The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

AVAILABLE WORK TIME FACTOR		D	mD	mC	С	C+
TOTAL WORK MINUTES per D 4 10's		600	600	600	600	600
ADDITN'L.SITE SAFETY MEETINGS NOT INCLD. IN I	BA QUANTITY	- 1	1	1	1	1
	MINUTES	25	25	25	25	25
TOTAL		25	25	25	25	25
PPE DON & DOFFING	QUANTITY	0	0	3	3	3
(ADJUST LEVEL D per WORK PLAN)	MINUTES	0	0	15	15	20
TOTAL			0	45	45	60
WORK BREAKS	QUANTITY	N/A	2	2	2	2
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	15
TOTAL			30	30	30	30
MOBILIZATION - ROUND TRIPS	QUANTITY	N/A	4	4	4	4
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	. 15
TOTAL			60	60	60	60
COOLDOWNS PER DAY	QUANTITY	N/A	4	4	4	4
** (4 OUT OF 12 MONTHS) 33.33	% MINUTES	N/A	15	15	15	15
TOTAL	·		20	. 20	20	20
AIR TANK REPLACEMENT	QUANTITY	N/A	N/A	N/A	N/A	N/A
	MINUTES	N/A	N/A	N/A	N/A	N/A
TOTAL						
AVAILABLE WORK TIME		575	465	420	420	405
AVAILABLE WORK TIME FACTOR		0.96	0.78	0.7	0.7	0.68

NOTE: Adjust Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's. Any other circumstances, over-ride the minutes per day.

^{**} Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances.

APPENDIX "C"

HEALTH PHYSICS

PROJECT:

OSDF PLACEMENT FY06

ESTIMATE NO. C2-2001-05-06 36

CLIENT: WBS NO .: DOE 1.1.C.D

17-May-01

ESTIMATOR: T.WAGNER LOCATION: FERNALD

TASK NO.: CCPL3

Fluor Fernald, Inc.

PPE"s - PERSONAL PROTECTIVE EQUIPMENT

		UNIT		* NO. 0	OF CHANGE OU	TS PER WORKER	PER DAY
DESCRIPTION	UNIT	COST	Man Da	ys (TOTAL HOUR	S worked in PPE's I	iv. by WORK HOURS	/DAY)
PPE LEVEL C / C+ / B: F/HF MASK w/RESP.&CAF	RT.		*	MAN DAYS	MAT'L.\$'s	PPE LEVEL	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	0	\$0	C/C+	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	·EA	\$4.46	3	0	\$0	C/C+	(DOUBLE PPE)
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	0	\$0	~ C//C+;; >	
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	0	\$0	C/C+	
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	0	\$0	CIC+	•
APR CARTRIDGES - DISPOSABLE	PR	\$6.98	. 3	0	\$0	C/C+	
SUB-TOTAL		\$17.42	3		\$250		
				\$/MD =	\$0.00		
						_	
PPE LEVEL mD: FULL DRESS				MAN DAYS	MAT'L.\$'s	PPELEVEL	
LT.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIES	PR	\$4.46	3	1421	\$19,008	mC: ×	1
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	1421	\$1,023	mC mC	

				\$/MD =	\$17.94	
SUB-TOTAL		\$5.98	3		\$25,486	
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	1421	\$4,347	& SmC & E
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	1421	\$1,108	SmC3
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	1421	\$1,023	≤3cmC ≤2
LT.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIES	PR	\$4.46	3	1421	\$19,008	mCteles
PPE LEVEL md: FULL DRESS				MAN DAYS	MAT'L.\$'s	PPECEVEL

·						
•			QTY.			
			PER	NO. OF		
SUBCONTRACTOR REQUIRED PURCHASES			WKR.	WORKERS	MAT'L.\$'s	PPELEVEL
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	\$12.70	6	8	\$610	
APR w/HALF FACE MASK - (1) PER WORKER	EA	\$22.30	6	Ó	\$0	6.0
APR w/FULL FACE MASK - (1) PER WORKER	EA	\$174.00	6	0	\$0	2.5-C
SCBA	EA	\$1,894.00	2	0	\$0	B
COOL VESTS	EA	\$137.50	6	0	\$0	C/B*
THERMO STRIPS	EA	\$50.00	6	0	\$0	
SUR-TOTAL					\$610	

TOTAL PPE's =

\$26,100

(FORWARD TO PAGE 2 OF 2)

OTHER PPE'S SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. COSTS OF FD FERNALD SUPPLIED PPE's, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCURRED BY FD FERNALD AND COSTS ARE NOT INCLUDED AS PART OF PROJECT COSTS AT THIS TIME.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: OSDF PLACEMENT FY06

ESTIMATE NO. C2-2001-05-06 36

CLIENT: WBS NO.: DOE 1.1.C.D DATE: 17-May-01 ESTIMATOR: T.WAGNER LOCATION: FERNALD

TASK NO .: CCPL3

-MEDICAL MONITORING -

MEDICAL - PHYSICAL and IN-V	IVO MO	NITORING .	LOST	WORKER T	IME for RAD I	I WORKERS C	NLY
					AVG.		
DESCRIPTION	QTY	HRS	WKR	TOTAL	LABOR	TOTAL	
PHYSICAL (3hrs), IN-VIVO (1hr)				HOURS	RATE	LABOR \$	
BASELINE PHYSICALS	1	4	9	36	\$26.85	\$970	
ANNUAL PHYSICALS	0	4	9	0	\$26.85	\$0	
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	. 9	9	\$26.85	\$240	
SUB-TOTAL						\$1,210	

RADIATION IN-VITE	QTY	HRS	WKR		AVG. LABOR RATE	TOTAL LABOR \$
BI-MONTHLY BIOASSAY	6	1	9	54	\$26.85	\$1,450
				·		
SUB-TOTAL						\$1,450

RANDOM DRUG TESTING

 	AITO OIII DI	100 IL	O i ii C				
	TESTS	HRS	TOTAL HOURS	AVG. RATE	LABOR \$'s		
	15	2	30	\$26.85	\$800	•	_
NO. OF	TESTING	AVQ, NO.	CHANCE/	NO. OF WKRS.	CHANCES	CONSTR	
· WKRS,	DAYS	OF TESTS	DAY	FOR THIS	/DAY FOR TEST	WORKING	
TESTED	PER YR.	PER DAY	FOR TEST	ESTIMATE	FOR PROJECT	DAYS	
2340	226	10	0.0042735	16	0.0684	226	_

	LABOR \$'s THRU	
	SAFETY	LABOR \$'s
WORK DELAYS CAUSED BY MONITORING 0.0%	\$2,429,224	\$0
	<u> </u>	LABOR \$'s
WORK DELAYS CAUSED BY RAD CHECKING 0.0%	\$2,429,224	

	TOTAL	TOTAL	GRAND
	LABOR	MAT'L.	TOTAL
TOTAL HEALTH PHYSICS	\$3,500	\$26 ,100	\$29,600

(FORWARD TO ESTIMATE SUMMARY SHEET)

ACTIVITY DURATIONS

Fluor Fernald, Inc.

PROJECT:

OSDF PLACEMENT FY06

CLIENT:

ESTIMATE NO. C2-2001-05-06 36 DOE

WBS NO .:

1.1.C.D

DATE:

17-May-01

ESTIMATOR: T.WAGNER LOCATION: FERNALD

TASK NO .: CCPL3

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
CONSTRUCTION:	01-May-01	≥ 01±0ct-05	01-Apr-06	:30-Sep-06	12.0	MONTHS
					0	MONTHS
TOTAL	-				· 5 2 12.0	MONTHS

	DATE of EST. t	
a.	59.1	MONTHS
b.	. 0	MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS			-		0	MONTHS

DATE of EST. to MID-POINT CTIVITY DURATION					
0	MONTHS				

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

	,	

ESTIMATE SUMMARY SHEET

PROJECT:

OSDF PLACEMENT FY07

ESTIMATE #: C2-2001-05-006 37

CLIENT: DOE WBS#: 1.1.C.D Fluor Fernald, Inc.

DATE:

17-May-01 ESTIMATOR: T.WAGNER

LOCATION: FERNALD TASK NO.: CCPL3

ITEM DESCRIPTION	M/H	RATE	LABOR \$	S/C \$	MAT'L \$	EQUIP. \$	TOTAL \$
Post Award Document (Bonds & Insurance)				\$75,300		· ·	\$75,300
Submittals	1,600		\$80,210				\$80,210
Overhead & Profit			1	\$965,856			\$965,856
Off Hour Dust Control	.			\$20,000	1		\$20,000
Control & Management (separate estimate)	1		1		1		1
Site Prep	5,520		\$161,580	\$153,450	\$6,230	\$145,468	\$466,728
OMTA Operations (including shutdown)	9,369		\$250,750		1	\$314,678	\$565,428
Removal of Impacted portion Haul Rd	141		\$3,770		1	\$5,800	\$9,570
Placement of 12" Protective Layer	705		\$18,850		1	\$9,710	\$28,560
Placement of 24" Select Layer	1,325		\$35,710	1	1	\$13,840	\$49,550
Placement of 36" Select Layer	2,312		\$62,790		\$480	\$32,940	\$96,210
Placement of CAT #1 1Q	3,757	1	\$101,242		1	\$45,293	\$146,535
Placement of CAT #1 3&4Q	14,242	1	\$391,651	. 1	1	\$180,730	\$572,381
Placement of CAT #2 & #4 Above Grade 1Q	148	İ	\$3,660		,	\$3,190	\$6,850
Placement of CAT #2 & #4 Above Grade 3&4Q	961	.	\$23,789	I	. }	\$20,737	\$44,526
Placement of CAT #3 Palletized Transits 1Q					. 1	1	,
Placement of CAT #3 Palletized Transits 3&4Q	14,394	1	\$395,000			\$260,000	\$655,000
Placement of CAT #5 Friable Asbestos 1Q	7 1,000	1	-		. 1		*,
Placement of CAT #5 Friable Asbestos 3&4Q		1		ŀ		1	
Placement of CAT #28#4 @ & Below Grade 1Q	3,256	1	\$89,107		. 1	\$84,760	\$173,867
Placement of CAT #28#4 @ & Below Grade 3&4Q	12,604	1	\$344.947		,	\$328,120	\$673,067
Placement of CAT #2  @ & Below Grade 3&4Q Placement of CAT #5 Thorium/Soil Debris 1Q	(2,007	1	Ψυττ,υ		, ,	\$520,120	ψυι υ, υυ.
Placement of CAT #5 Thonum/Soil Debns 1Q Placement of CAT #5 Thorium/Soil Debris 3&4Q				i I	. !	1	
Placement of CA1 #5 Inonum/Soil Debits 3040		.		i i	, !		i
	1	1	. 1	i	, ,		i
	1			i I	, !	1	i
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*DIRECT FIELD COSTS TOTAL	70,334	\$27.91	\$1,963,056	\$1,214,606	\$6,710	\$1,445,266	\$4,629,637
PM & GEN SUPER, SUP. ENG, QA, & SAFETY	1,707	\$33.62	\$57,400			Ψ1,	\$57,400
PM & GER SUPER, SUP. ENG, WA, & SAFETT	""		,	1	, 1		1
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	420	1	es enn		ene 100		e29.70
HEALTH PHYSICS	129	1	\$3,600		\$26,100	1	\$29,700
·		!	1		1	1	
		1		1 !	f '		-1 152 70
PAYROLL BURDENS & BENEFITS		,	\$1,153,700	!	1		\$1,153,700
		Ī	1	1 1	1		
			1			-00.700	*09.70
SALES TAX	1.026		C1 014 700	 	\$2,000		
SINDIRECT FIEED COSTS TOTAL	1,836	241.02	\$1,214,700		\$28,100		
DIRECT& INDIRECT FIELD COSTS TOTAL	72,171	\$44.03	\$3,177,756	\$1,214,606	\$34,810	\$1,531,966	\$5,959,13
					4	1	ŧ

ESTIN	IATE SUMN	IIARY SHI	EET		•	
PROJECT: OSDF PLACEMENT FY07					DATE:	17-May-01
ESTIMATE NO.: C2-2001-05-006 37	FACTO	RS			ESTIMATOR:	T.WAGNER
CLIENT: DOE WBS NO.: 1.1.C.D	•	*			LOCATION: TASK NO.:	FERNALD CCPL3
FIXED PRICE S	LABOR \$	S/C \$	MAT'L.\$	EQUIP. \$	PPE\$	TOTAL \$
DFC DOLLARS	\$1,963,056	\$1,214,606	\$6,710	\$1,445,266	\$26,100	\$4,655,737
IFC COST FACTOR	1.6188	-	1.0000	1.0000	-	
	1.0000	1.0000		1.0000	1.0000	
SALES TAX		•	1.0600	1.0600	1.0600	
		**********		W. W. Land		
DIRECT FIELD COST FACTOR =	1.6188	1.0000	1.0600	1.0600	1.0600	
		10				
BASE ESTIMATE \$'S	\$3,177,756	\$1,214,606	\$7,113	\$1,531,982	\$27,666	\$5,959,122
		Line Same	The second second second	***		ersa di
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
		Maria Table	Telegraphics		T. P. (D. 1972)	
TARGET ESTIMATE FACTOR	1.6188	1.0000	1.0600	1.0600	1.0600	·
FPS TARGET ESTIMATE (FY01 \$)	\$3,177,756					
erde des la companyation proposed communication de communication de la communication de la communication de la Materiale de la communication de la communication de la communication de la communication de la communication	And the second second second	Geric personal and an energy of a	Company of the Company of Company	CHRISTANT	The second second	

NOTE:

F THERE ARE NO DEC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

	E	STIMA	TE SUMM	ARY SHE	ET			
PROJECT:	OSDF PLACEMENT FY07						DATE:	17-May-01
ESTIMATE NO.	:C2-2001-05-006 37		CT FIELD	9			ESTIMATOR:	T.WAGNER
CLIENT:	DOE	- W /	FACTO	RS			LOCATION:	FERNALD
WBS NO.:	1.1.C.D		14505.6	S/C &	MATU 6		TASK NO.:	CCPL3
PATTIEM NO.	: DESCRIPTION		LABOR \$	S/C \$	MAT'L \$	EQUIP. \$	PPE \$	TOTAL \$
1	Post Award Document (Bonds & Insura		(ACCIOICTE	75300				
				\$75,300				\$75,300
2	Submittals		80210					
			\$129,840					\$129,840
3	Overhead & Profit			965856				
				\$965,860				\$965,860
4	Off Hour Dust Control			20000				
				\$20,000				\$20,000
6	Site Prep		161580	153450	6230	145468	2,548.76	
J	Site Frep		\$261,560	\$153,450		\$154,200	\$2,700	\$578,510
_			050750					
7	OMTA Operations (including shutdown)		250750 \$405,910			314678 \$333,560	3,955.33 \$4,190	\$743,660
8	Removal of Impacted portion Haul Rd		3770 \$6,100			5800 \$6,150	59.47 \$60	\$12,310
			40,100			\$0,100	400	Ψ12,010
9	Placement of 12" Protective Layer		18850			9710	297.34	044.400
			\$30,510			\$10,290	\$320	\$41,120
10	Placement of 24" Select Layer		35710			13840	1 1	
			\$57,810			\$14,670	\$600	\$73,080
11	Placement of 36" Select Layer		62790		480		990.45	
			\$101,640		\$510	\$34,920	\$1,050	\$138,120
12	Placement of CAT #1 1Q		101242			45293	1,596.99	
			\$163,890			\$48,010	\$1,690	\$213,590
12	Placement of CAT #1 3&4Q		391650,7291			180730.063	6,177.90	
			\$634,000			\$191,570	\$6,550	\$832,12
13	Placement of CAT #2 & #4 Above Grad		3660			3190	57.73	
			\$5,920			\$3,380	I	\$9,36
13	Placement of CAT #2 & #4 Above Grad		23789.47368			20736.84211	375,26	
	1 1000111011 01 07 11 #2 0 #4 7 12070 0102		\$38,510	1		\$21,980	1	\$60,89
14	Placement of CAT #3 Palletized Transi						_	
	Placement of CAT #3 Palletized Flatisi							
4.4	St		205000			00000	0.000.70	
14	Placement of CAT #3 Palletized Transi	•	395000 \$639,420	1		\$275,600		\$921,62
15	Placement of CAT #5 Friable Asbestos			1			-	
							İ	
15	Placement of CAT #5 Friable Asbestos						-	
16	Placement of CAT #2 @ & Below G		89107 \$144,240	Į.		\$4760 \$89,850		
			\$147,210	1		\$05,650	\$1,730	φ200,00
16	Placement of CAT #2 @ & Below G		344946.6667 \$558,390	1		32812	1	
			\$550,390	Ί		\$347,81	\$5,770	\$ \$311,97
17	Placement of CAT #5 Thorium/Soil Deb						-	
17	Placement of CAT #5 Thorium/Soil Deb						-	
TOTAL DIRE	CT FIELD COSTS W/FACTORS		(FY01 DOLL	ARS)				\$5,962,93

Cost Alloca	tion for Baseli	ne Entry
1 Post Award		\$75,300
2 Submittal		\$129,840
Subtotal		\$205,140
3 Overhead & Profit		\$965,860
4 Off Hour Dust Control		\$20,000
6 Site Prep		\$578,510
Subtotal	***************************************	\$598,510
7 OMTA Operations (inclu	udina shutdown)	\$743,660
8 Removal of Impacted po	•	\$12,310
Subtotal		\$755,970
9 Placement of 12" Protect	ctive Layer	\$41,120
10 Placement of 24" Select	t Layer	\$73,080
11 Placement of 36" Select	t Layer	\$138,120
12 thru 17 Quarter 1		\$458,530
12 thru 17 Quarter 3 & 4		\$2,726,600
Grand Total		\$5,962,930
Verify old total		\$5,962,930
•	Match %	100.00%

s:wagnerccpl3\baseline ccpl3 osdf placement fy07.xds

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY07
ESTIMATE NO.: C2-2001-05-006 37
CLIENT: DOE
WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

\$75,300 \$965,856 \$20,000 \$770 \$6,230 \$145,468 \$314,678 \$770 \$13,840 \$13,840 \$13,840 \$13,840 \$13,190 \$20,737 \$20,737 \$107 \$107 \$100 \$20,737 \$20,737 \$20,737 \$20,737 \$20,737 \$20,737 \$20,737 \$20,737 \$20,737 \$20,737 \$20,737 \$20,737 \$20,737			74.0	7.11.41.0		AN LOUID			LASON	TIN		I AROR	3/8	MATI	FOLIP	TOTAL
1,900 S10,21	ži C		3		1	Total	ı	Labor	S/C	Mari	Equip					
Second to the control of National Follows a final and the control of National Follows and Second to the control of National Follows and Seco													\$75,300			\$75.300
1,600 \$80,210 \$80,210 \$80,52	-	Post Award Document (Bonds & Insurance)														
Other House Control & Profit	7	Submittals				1,600						\$80,210				\$80,210
Step Prop. Ste	က	Overhead & Profit											\$965,856			\$965,856
State Prop. State Stat	4	Off Hour Dust Control						·····		***************************************			\$20,000			\$20,000
Single Prep Single Prep	ហ	Control & Management (separate estimate)														
141 \$3.770 \$18.600 \$19.360	ဖ	Ske Prep				5,520						\$161,580	\$153,450	\$6,230	\$145,468	\$466,728
141 141	~	OMTA Operations (including shutdown)			·····	696,6						\$250,750			\$314,678	\$565,428
Placement of 12" Protective Layer 1,325 15,850 513,840 5	80	Removal of Impacted portion Haul Rd				141						\$3,770			\$5,800	\$9,570
1,325 Placement of 24" Select Layer 1,325 Placement of 24" Select Layer 2,312 S62,790 \$480 \$532,940	6	Placement of 12" Protective Layer				705						\$18,850			\$9,710	\$28,560
Placement of 36" Select Leyer 2,312 5101,242 51	2	Placement of 24" Select Layer				1,325						\$35,710			\$13,840	. \$49,550
14,242 14,242 14,242 14,242 14,242 14,242 14,242 14,242 14,242 14,242 14,242 14,242 14,242 14,242 14,242 14,242 14,394 14,394 14,394 12,604 1	=	Placement of 36" Select Layer				2,312						\$62,790		\$480	\$32,940	\$96,210
Placement of CAT #1 344Q 14,244 148 43,960 43,190 14,244 148 1	12	Placement of CAT #1 1Q				3,757						\$101,242			\$45,293	\$146,535
Standard	5 5	Placement of CAT #1 3&4Q				14,242						099'65			\$3,190	
Placement of CAT #3 Pallettzed Transits 1Q \$395,000 \$560,000 \$65 Placement of CAT #5 Friable Asbestos 1Q \$3,256 \$89,107 \$84,760 \$17 Placement of CAT #2 #4 @ & Below Grade 1Q \$3,256 \$12,604 \$344,947 \$344,947 \$328,120 \$67 Placement of CAT #5 Thorium/Soil Debris 1Q Placement of CAT #5 Thorium/Soil Debris 3&4Q \$344,947 \$328,120 \$67 Placement of CAT #5 Thorium/Soil Debris 3&4Q Placement of CAT #5 Thorium/Soil Debris 3&4Q \$344,947 \$328,120 \$67	5 to	Placement of CAT #2 & #4 Above Grade 3&4Q				961						\$23,789			\$20,737	\$44,526
Placement of CAT #5 Friable Asbestos 1Q Placement of CAT #5 Friable Asbestos 3&4Q Placement of CAT #5 Thorlum/Soil Debris 3&4Q Placement of CAT #5 Thorlum/S	4 :	Placement of CAT #3 Palletized Transits 1Q				14.394				-		\$395,000			\$260,000	\$655,000
Placement of CAT #5 Friable Asbestos 3&4Q \$84,760 \$17 Placement of CAT #28.44 @ & Below Grade 1Q 12,604 \$344,947 \$344,947 \$328,120 \$67 Placement of CAT #28.44 @ & Below Grade 3&4Q Placement of CAT #5 Thorium/Soil Debris 1Q Placement of CAT #5 Thorium/Soil Debris 3&4Q \$328,120 \$67	ŧ ñ	Placement of CAT #5 Friable Asbestos 1Q				•										
Placement of CAT #28#4 @ & Below Grade 1Q 3,256 \$12,604	15	Placement of CAT #5 Friable Asbestos 3&4Q								·		-				
Placement of CAT #28#4 @ & Below Grade 3&4Q 12,504 \$544,547 \$544,547 \$540,547 \$540,547 \$540,547,500 \$540,547,540 \$540,547,540 \$540,547,540 \$540,547,540 \$540,547,540 \$540,547,540 \$540,547,540 \$540	9	Placement of CAT #2 @ & Below Grade 1Q				3,256						\$89,107			\$84,760	\$173,867
Placement of CAT #5 Inorium/Soil Debris 3&4Q Placement of CAT #5 Thorium/Soil Debris 3&4Q L R R R R R R R R R R R R	ā	Placement of CAT #2 @ & Below Grade 3&4	ā _			12,604						444,94		•	926,	
	4	Placement of CA1 #5 I nonum/Soil Debris 19	_ ~													
	:		_													
	200			STATE OF	9 (2.2.2.18.2.2.1		10000					1050(50) S	809 123 21 608	01/2/05	38 S 17446 268 B	Self-Personal Control of the Control

OSDF PLACEMENT FY07

PROJECT: OSDr r.c. _____ ESTIMATE NO.: C2-2001-05-006 37

1.1.C.D CLIENT: WBS NO.:

Fluor Fernald, Inc.

TOTAL				\$30,080 \$50,130	\$80,210	000	000,024		
EQUIP									
MAT'L									
S/C							\$20,000	÷	
LABOR				\$30,080	\$80,210				
	Equip								
TIN	Mat'i			•					
COSTAUNIT	s/c						20,000		
	Labor								
တ္သ	Rate			50.13					
MAN-HOURS	Total			600					
Σ	ž			50.0	3				
TIND YTO			S	0 0 0			ls		
ΔT			1	ech 12	2				
		Post Award Documents	Bonds & Insurance (calculated on summary)	Submittals (y09 use 6ea 30 with 30 & 10 for tech Plans allowance	Technical submittals allowance	Off Hour Dust Control	Off Hour Dust Control allowance	Control & Management (separate estimate)	
MEM	Š.	-	النب	8		4		w	

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DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY07 ESTIMATE NO.: C2-2001-05-006 37 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

D H	OSDF PLACEMENT FY07	aπγ -	LINIT	ž	MAN-HOURS			COST/UNIT	UNIT		LABOR	S/C	MAT'L	EQUIP	TOTAL
Level				Calk	Total	Rate	Labor	s/c	Maťi	Equip					
						7000 + 0400	8								
	Dust Control CAT 613 Water wagon (2ea)	9	e E	77		ימום ז	 S			3,770				\$75,400	\$75,400
		2,559	È.	7	į	9				12.55	600 440			\$64,218	\$64,218
일 일	Operator (9 months) Operator (5 months)	1,935	토토		1516	29.48					\$44,690		٠		\$44,690
	Site Prep													1	
	Mobilization of equipment	5	눋	9	82	29.48				100.00	\$2,490			\$1,000	\$3,490
	e dence	2.000	=						0:30				\$600		\$600
D m		9	ځ	-	56	24.71					\$1,390				\$1,390
D		40	È	-	26	29.48				i	\$1,660			61.010	\$1,660
	CAT 416 backhoe	9	ۓ	_					200	72.17			\$780		010'18 8780
- (312	. G	-	Ç	24.74			7:30		\$1.050		}		\$1,050
E E	Charator	5 5	<u>-</u>	√	212	29.48					\$620				\$620
]	_	15	±	-						25.17				\$380	\$380
	Install check dams/SIDs					,									
₽ Q	Laborer	20	È	7	26	24.71					\$1,390				086,14
OE O		20	Ė	-	58	29.48					\$830				\$830
Om Om		20	눝 .		28	24.94				A7. 00	00.4			61 990	8.1 ABO
	CAT 330 TracHoe	200	È.						100	99.74			£190		\$190
	Type D Rip Rap	2 6	5 3						06.61	73.62			•	\$1.470	\$1.470
	Haul Truck	97	È	-						10:04					
	Construction/RAD fencing 4' wire w/ p	1,200	<u>~</u>						2.83				\$3,400		\$3,400
Ð		20	È	7	26	24.71					\$1,390		000		67,390
	Install const/grid signage	36	ea						32.00				\$1,260		002'1\$
	Site prep														
Ð		90	È	7	82	24.71					\$2,090				\$2,090
	NO ALI												•		
	Survey crew	_	<u>ø</u> .					153,450				\$153,450			\$153,450
	Training	30	È	8	761	30.00		•			\$22,840				\$22,840
	Training based on HithPhys Sheet	-													
A STATE OF		Len			Wash Interest						0867 KgJK	01/218	\$10K0	100/47/6	164/(0.1%)

s:\wagner\ccpi3\bsseline ccpi3 osdf placement fy07.xls

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY07 ESTIMATE NO.: G2-2001-05-006 37 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

TOTAL		\$59,600 \$55,060 \$20,740 \$19,770	\$22,500	\$164,420 \$121,931 \$57,346		\$6,350	\$565,428	\$1,990 \$2,340 \$1,470 \$1,660 \$1,410 \$700	\$9,570	
EQUIP		\$59,600 \$55,060 \$20,740		\$121,931 \$57,346			\$314,678	\$1,990 \$2,340 \$1,470	\$5,800	
MAT'L		:.								
S/C										
LABOR		\$19,770	\$22,500	\$164,420		\$6,350	\$250,750	\$1,660 \$1,410 \$700	\$3,770	
	Equip	107.95 99.74 37.57		73.62				99.74 116.98 73.62		
COST/UNIT	Matil									
SOS	S/C			5,075.00						
	Labor		—— 50%					20%		
တ	Rate		œ	29.92		30.00		Rate + 20% 29.48 24.94	$\sqcup \!\!\! \perp$	
MAN-HOURS	Total	916	916	5,495		212	9,369	28 56 58 58 58 58 58 58 58 58 58 58 58 58 58	141	
	Cnit	2	-	0 - -		ιο ·		000-		
TIND		444		두두두	ш	Ĕ		22222		
ΔT		€	650	1,949 1,656 1,656	22	30		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1-	
E OSDF PLACEMENT FY07		7 OMTA Operations (including Shutdown) 7 A apply to ea fiscal yr of FY04 - FY08 OMTA Operations thru shutdown period (approx. 3 mo) CAT 973 Track Loader/4way bucket CAT 330 Excavator/grappler Tractor (farm) Foreman (3 mo)	Operator (3 mo)		Lighting double shift 2x5.5mx4	7 B Special for FY04 - FY08 Training & Hiring of 5 additional personnel for night shift Training Training based on HithPhys Sheet	OMTA Operations (including shutdown)		TOTAL FOR 1	
PPE	Level	Q E	Q E	<u>و</u>				무 은 1		

PAGE 5 OF 12

CONTRACTOR - Stated in FY01 DOLLARS

DETAIL ESTIMATE WORKSHEETS

DATE: 17-May-01
ESTIMATOR: T.WAGNER
LOCATION: FERNALD
TASK NO.: CCPL3

Fluor Fernald, Inc.

PROJECT: OSDF PLACEMENT FY07
ESTIMATE NO.: C2-2001-05-006 37
CLIENT: DOE
WBS NO.: 1.1.C.D

TOTAL				\$3,480	\$1,830	\$8,710	\$8,310	\$28,560			\$6,970	\$17,420	\$16,630	\$1,590	0.00	\$48,550			\$9,750	\$4.880	\$29,100	\$24,390	\$5,820	\$480	\$3,480	0/8\$	\$96,210		:		
EQUIP				\$3,480	00,00			\$9,710			\$6,970	, i	200	086,14		\$13,840		1	647,440	\$4.880		-			1	28/0	\$32,940				T
MAT'L																								\$480			\$480				
S/C									·	ari il mari mari il mari											·										
LABOR					\$1,830	\$8,710	\$8,310	\$18,850				\$17,420	\$16,630	\$1,660		\$35,710					\$29,100	\$24,390	\$5,820		\$3,480		\$62,790				
	Equip			40.98	/3.26			·			40.98	13.28		40.98					40.98	73.26	200					20.48					
UNIT	Mat'i					· · ·																		0:30							
COST/UNIT	S/C							-								-															
	Labor	٠.	%0%						%02								·		 %0.												
— <u> </u>	Rate		Rate + 20%		25.01	24.71	29.48		Rate + 20%			24.71		29.48					Rate + 20%		20.48	24.71	29.48		24.71						
AN-HOUR\$	Total				7.	353	282	705				705	564	56	3	1,325					780	987	197		141		2312	71017		•	
MA	Cnit				0	2.5	2.0		·			2.5	2.0	0.0	?						2 5	2,7	1.0		2.0						
TIND						ځ :								<u>ځ</u> ځ					녿.					=							
ΔŢ				82	82	100	100				170	170	200	4 8 4 0	7				238	238	200	280	140	1,600	20	42.5			-		
OSDF PLACEMENT FY07		9 Placement of 12" Impacted	protection cover (10days)	CAT 563		Foreman		Total for 1 of 4Liners	H 5	(20days)	CAT 563	CAT D6 LGP dozer		_	Operator 4 days	Total for 1 of 4Liners		11 Placement of 36" Select	CAT 563	CAT D6 LGP dozer		Operator (28day)				Trencher	133,000 ICT	IOIAL FOR 1			
PPE	Level					E 6						Ę	<u>6</u>	,	<u> </u>				-		-	E (ב ב ב								

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Stated in EVALUACION Stated in EVALUACION

ESTIMATE WORKSHEETS DETAIL

Fluor Fernald, Inc.

OSDF PLACEMENT FY07

PROJECT:

ESTIMATE NO.: C2-2001-05-006 37

1.1.C.D

WBS NO.:

CLIENT:

ESTIMATOR: T.WAGNER 17-May-01 LOCATION: FERNALD

CCPL3 TASK NO.:

\$1,170 \$450 \$180 \$700 \$910 \$960 \$180 \$180 \$70,100 \$34,036 \$20,180 \$16,180 \$7,480 \$13,820 \$47,170 \$146,535 \$606,417.16 \$2.47525 \$248,496 TOTAL \$0.76508 \$1,170 \$70,100 \$70,100 \$80 \$45,293 \$180,730.06 EQUIP MATIL \$34,036 \$34,036 S/C \$20,180 \$16,180 \$180 \$700 \$910 \$7,480 \$13,820 \$47,170 \$39,530 \$101,242 \$391,650.73 \$960 \$180 \$870 \$3,800 \$144,360 LABOR 116.98 40.98 25.17 1,275 Mat'i Equip COSTAUNIT S/C 90.00 Labor Rate + 20% Rate + 20% Rate 25.91 24.71 29.48 29.48 25.91 24.71 30.34 28.05 25.91 29.48 24.71 MAN-HOURS 28 32 7 533 533 267 533 1,600 141 3757 14242 0.0635 5,066 Total i S 1.0 1.0 3.0 3.0 0.5 2.0 2.2 2.3 TINU TTO 222222 * * * * * * * * * * * * 5.5 378 378 378 378 378 59,200 cy 144,600 cy OSDF PLACEMENT FY07 Placement of Impacted Mat'l Double shift 5.5mo in FY06 & FY07 Double shift Total FY06 & FY07 2,222 cylday avg. 10hrs CAT 563 Compactor ICY = \$2.48 Portable light plants CAT 330 Trac hoe 10 Lights x 5.5m Subtotal for 1unit CAT D8 dozer Survey Crew mD Foreman mD Laborer Supervisor Unit rates 12 CAT #1 Foreman Foreman Operator Operator Operator Laborer Safety Laborer 38.40 38.40 PPE Om C 딭 Level ē

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DETAIL ESTIMATE WORKSHEETS

Fluor Fernald, Inc.

PROJECT: OSDF PLACEMENT FY07
ESTIMATE NO.: C2-2001-05-006 37
CLIENT: DOE
WBS NO.: 1.1.C.D

												-	-	1	
100	OSDF PLACEMENT FY07	_ Zo	ENS.	≥	AN-HOUR	···		COST	OST/UNIT		LABOR	S/C	MAT'L	EQUIP	TOTAL
evel				ij	Total	Rate	Labor	S/C	Mati	Equip					
											-				
13															
<u>ჯ</u>	CAT #2 & #4 ABOVE GRADE							-							
_	10 11 Discourant 744 four					Rate + 2	~ %								

TOTAL				\$1,160	\$350	\$160	000	0000	ORCA	\$100	2/84		\$4,230	\$2,203,830	\$5.708502	\$44,526		
EQUIP				\$1,160	\$350	\$160		9300				-	\$1,970			\$3,190 \$20,737		
MAT'L			•															
S/C						egran, Para												
LABOR						0	00/\$		\$290	\$100	\$870		\$2,260	\$1,177,460	\$3.049933	\$3,660 \$23,789		
	Equip			165.35	116.98	40.98	1	99.74										
UNIT	Maťi					•												
COST/UNIT	S/C																	
	Labor																	
ψ	Rate		 Rate + 20%				24.71			25.91								
MAN-HOURS	Total						78		. 24	4	32		91	47,568	0.1232	148 961	•	
	E C					,	2.0		1.7	0.25	2.5							
LNS				Ĕ	늄													
ΔŢ				7	3	4	9	ຕັ	10	77	9		_					
JENT FY07		1	GRADE										anne de la companya d			1,200 cy 7,800 cy		
OSDF PLACEMENT FY07			CAT #2 & #4 ABOVE GRADE	CAT 826	CAT D8	CAT 563 compactor	Laborer	CAT 330 Track hoe	Operator	Foreman	borer	ICX = \$5.71	Catholat for family	Total ve 521 unite	unit costs	1ପ 3&4ଘ		
Hdd	Level	13	<u> </u>	<u>. č</u>	<u> </u>		mD La	<u>ڻ</u>	UD Om		mD Laborer			<u> </u>	<u> </u>	¥ 8 3		

Fluor Fernald, Inc.

PROJECT: OSDF PLACEMENT FY07 ESTIMATE NO.: C2-2001-05-006 37 CLIENT: DOE WBS NO.: 1.1.C.D

TOTAL		\$420	\$9 90 90 90 90 90 90 90 90 90 90 90 90 90	\$520 \$940 \$140		\$3,930	\$27.2917	\$655,000	
EQUIP			\$950			\$1,560	\$10.8333	\$260,000	
MAT'L									
s/c									
LABOR		\$420	7 7 7	\$520 \$940 \$140		\$2,370	\$16.4583	\$395,000	
	Equip		63.28	40.98					
TINO	Mati								
COST/UNIT	S/C								
	Labor	%0		:			1.		
co	Rate	Rate + 20%		24.71 29.48 25.91					
MAN-HOURS	Total	. <u>4</u> ;	4	32		3.541	-	14,394	· .
	Cuit	1.0	9. -	1.00 1.50 0.25				·	
TINS		hr		244					
TIND VIO		10	15	र र र र र					
= OSDE PLACEMENT FY07		14 CAT #3 Palletized Transite Placement Place pallets (10hr day) 144lcy	mD Laborer Place Fill around & over pallets & grld 1708 cy (1.5day) CAT D6 dozer	CAT 563 compactor MD Laborer MD Operator MD Foreman	ICX = \$27.29	Subtotol = 1 grid	Total fires 4 I Grids unit costs	1G - cy 3&4Q 24,000 cy	
00	Leve	QE P	<u>6</u>	무무 무					

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DETAIL ESTIMATE WORKSHEETS

Fluor Fernald, Inc.

PROJECT: OSDF PLACEMENT FY07 ESTIMATE NO.: C2-2001-05-006 37

WBS NO.: CLIENT:

DATE: 17-May-01
ESTIMATOR: T.WAGNER
LOCATION: FERNALD
TASK NO.: CCPL3

EQUIP MAT'L S/C LABOR DOE 1.1.C.D

A.				06830	0000		086,14	0/4/1	0.44	φ. 180	0	000	0000	400	2	000	0000	9790) A		\$100	\$280	\$210	8160	250	}		\$8,070	29,990	\$24.16168	-	•		
TOTAL																																		
EQUIP							088'18	\$1,470	\$410				6	OC#							\$100			\$160	2		:	\$4,180	\$238,260	\$12.51497				
		 																<u></u>	 ,	-								-						
MAT'L		 															•																	
S/C																																		
LABOR				6	4930	00/#				\$180		\$330	\$260		0/4		\$330	\$280	02\$			\$280	\$210	2		2		\$3,890	\$221,730	\$11.64671				
	Equip					1	99.74	73.62	20.48					25.17							25.17			000	40.90									
COST/UNIT	Maťi																																	
- S	S/C		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,																															
	Labor		%07 -																															· ·
	Rate		Fate + 20%		29.48					25.91		29.48			25.91		29.48		25.91			27.70				20.9								
MAN-HOURS	Total				28	28		42	•	7		=	23	7	က		1	=======================================	ന്			*	- 1	•	•	7		188	10,723	0.5632				
¥	Cnit				0.	0.1		1.50		0.25		_	2.00		0.25		9.	1.00	0.25			ć	7.00	67.1	(0.25					·			
TINIT					Ĕ				ቯ				È				ځ						<u> </u>											
ΥLO					20	8	8	20	20	8		æ 	&	~	æ		8	<u>ھ</u>	₩			4 .	4 .	4.	4						•			
TOYA TURNATOR IS BOOK		CAT #5	Friable Asbestos 334cy	Excavate 10 trenches (2hr/trench)	Operator	Laborer	CAT 330 Trakhoe	· OSI	Trencher	Foreman	Placement	Operator	Laborer	CAT 416 BKH0e	Foreman	Trench	Operator	Laborer	Foreman		Backfill	CAT 416 BkHoe	Laborer	Operator	CAT 563 compactor	Foreman	124 16	Subjeted for 1 orid	Total times 57 grids	unit costs			3&4Q - cy	
-	Level	<u>o</u>	ŭ	ũ	Qu O	밑	<u> </u>	8	٤	胚	<u>a</u>	ō	<u> </u>	<u>ਹ</u>	Ľ	Ē	_	mD La	_		<u>aa</u>		_	<u>о</u> Сш	ò	<u>к</u>			1º	1		Ž	ř	

Fluor Fernald, Inc.

PROJECT: OSDF PLACEMENT FY07 ESTIMATE NO.: C2-2001-05-006 37

1.1.C.D

CLIENT: WBS NO.:

DATE: 17-May-01
ESTIMATOR: T.WAGNER
LOCATION: FERNALD
TASK NO.: CCPL3

\$580 \$200 \$50 \$350 \$420 TOTAL EQUIP MAT'L S/C LABOR Equip COST/UNIT Labor MAN-HOURS
Total Rate E S TINU YIT 16 CAT #2 & #4 At & Below Grade OSDF PLACEMENT FY07 PPE

<u>a</u> :	Placement						Rate + 20%	 %										
SAT I	1 Grid / shiff = 450cy CAT D8 CAT 563 mmnador		<u> </u>		1.0						116.98					\$580 \$200	0.0	\$580 \$200
mD Foreman	nan mara				0.25	1.8	25.91						\$20					\$20
abor	ē			<u>۔</u> څ	7	14.1	24.71						\$350					\$350
)per	mD Operator				7	14.1	29.48						2420					\$450
	ICX = \$3.56										,							
			·			9							000			428		¢1 600
3	Subtotol for 1 grid	+	+	+	+	30.0		+	T	\downarrow		8679	\$679.780	+		\$646,620		\$1,326,400
흥	Total times 829 grid	-	_	╁	\dagger	0.0666						\$1.8	\$1.8222			\$1.7333		\$3.5556
. (:				926						685	107			\$84.76		73.867
10 3&40	48,900 cy Q 189,300 cy					12,604						\$344,947	,947			\$328,120		\$673,067
			,											••			·	
						•							<u> </u>					
		-	-,															
									•						-			
																		
				-														
			•										<u> </u>					

SOLITOR PANEL SECTOR STANDARTH ADD

DETAIL ESTIMATE WORKSHEETS

OSDF PLACEMENT FY07 PROJECT:

ESTIMATE NO.: C2-2001-05-006 37 DOE CLIENT:

1.1.C.D WBS NO.:

PPE Level

Fluor Fernald, Inc.

ESTIMATOR: T.WAGNER LOCATION: FERNALD

CCPL3

TASK NO.:

17-May-01

DATE:

\$210 \$170 \$50 \$500 \$4,650 \$400 \$160 \$40 \$140 \$250 \$4,950 \$12,300 \$246,000 \$19.6800 \$300 \$30 \$2,700 TOTAL \$2,500 \$300 \$400 \$160 \$136,000 \$1,500 \$2,800 \$6,800 EQUIP MATIL S/C \$30 \$210 \$1,200 \$40 \$140 \$250 \$2,150 \$210 \$170 \$50 \$5,500 \$110,000 \$8.8000 \$2,150 LABOR 99.74 99.74 99.74 Equip S/C Mat'l COST/UNIT Labor Rate + 20% 25.91 24.71 29.48 24.71 25.91 25.91 24.71 29.48 Rate MAN-HOUR\$ 204.5 8 79 Total 0.327120 1.0 1.0 0.25 1.0 0.25 2.0 0.25 1.00 1.50 Cuit QTY UNIT 보보보 2 2 2 2 2 2 2 2 2 হ হ 17 CAT #5 Thorium / Thorium Soil Debris Place Thorlum Debris/Soll 1.5' deep OSDF PLACEMENT FY07 Excavation 125 cy = 5 hr unit costs ICY - \$19.68 Total times 20 grids Total for 5 trenches Total for 5 trenches Total for 5 trenches Subtotal for 1 grid CAT 330 Trakhoe CAT 330 Trakhoe **French method** 625 cy / grid mD Operator mD Laborer mD Foreman CAT 330 CAT 563 Foreman Foreman mD Foreman mD Laborer mD Operator Operator Backfill Laborer 38.40 28.40

무무

PAGE 12 OF 12

OCTOR TO CHANGE IN CONTRACT

DETAIL ESTIMATE WORKSHEETS

			·		
17-May-01 T.WAGNER FERNALD CCPL3	TOTAL		\$7,740 \$5,390 \$18,780 \$4,720 \$9,980 \$10,790	\$57,400	
DATE: 17-May-01 ESTIMATOR: T.WAGNER LOCATION: FERNALD TASK NO.: CCPL3	EQUIP				•
	MAT'L				
•	S/C		•		
	LABOR		\$7,740 \$5,390 \$18,780 \$4,720 \$9,980 \$10,790	\$57,400	
ú		Equip	_		· ·
ī	HN	Maťi			
	COSTAUNIT	s/c			
Fernald, Inc.		Labor			
		Rate	54.42 37.85 32.99 33.19 30.34 19.31 19.31	33.62	·
Fluor	MAN-HOURS	Total	142 142 569 142 356 356	1,707	
11.		ii C			
	FIND		* * * * * * * * * * * * * * * * * * * *		
	ΔTΛ		Shared 20.0% 20.0% 40.0% 20.0% 20.0% 25.0% 25.0% 25.0% ead		
PROJECT: OSDF PLACEMENT FY07 ESTIMATE NO.: C2-2001-05-006 37 CLIENT: DOE WBS NO.: 1.1.C.D	OSDF PLACEMENT FY07		Project Staffing D Project Manager D General Superintendent D Superintendent D Project Engineer D Quality Engineer D Safety Engineer D Office Administration in overhead Contract Administration in overhead D Contract Administration in overhead	TOTAL	

					APPENDIX	A. XION							_
PROJECT: OSDF PLACEMENT FY07	EMENT FYO	.			SITE SF	SITE SPECIFIC					DATE: 17-May-01 ESTIMATOR: TWAGNER	17-May-01 T.WAGNER	
ESTIMATE NOCZ-Z001-06-006 37 CLIENT: DOE WBS NO.: 1.1.C.D	37			EFFICIEN	CY / MULTI	EFFICIENCY/MULTIPLIER ANALYSIS	ıLYSIS				LOCATION: TASK NO.:	FERNALD CCPL3	
HONEL IENCEO FARICADA		ON CHART MANHOLIRS	NHOLIRS										
		20%	%09	%02	80%	%06	100%	105%	110%	NFLUENCE	WT'D VALUE	PROD. RESULT	. • .

CRAFT SKILL (NOTE 1)	POOR			FAIR			втр	V.G00D	XCELLEN	100.0%	12.0%	0.12	
CRAFT AVAIL.(NOTE 1)		POOR		FAIR			STD			%0 001	8.0%	0.08	
CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			90.0%	20.0%	0.18	
PLANT ELEVATION		OVER 10,000FT			5,000° TO 10,000 FT		UNDER 6,000 FT			100.0%	2.0%	0.06	
WORK SPACE	< MULT	LTIPLE SHIFTS	ė	200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	6.7	
WORK WEEK							4-10s / 5-8s			100,0%	15.0%	0.15	
60 HOUR WORK WEEK	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	//////////////////////////////////////	HITHINI III	OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS				%0:0	0.0%		
60 HOUR WORK WEEK		mananan manana mananan mananan	OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS					00	%0.0		
SHIFTWORK 2ND SHIFT 3RD SHIFT			3RD SHIFT	,	ZND SHIFT		OR ONE SHIFT ONLY	•	·	100.0% 100.0%	3.0%	0.03	
PROJECT SIZE					400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		100.0%	4.0%	0.04	
PLANT TYPE				REVAMP I	REVAMP & NEW	NEW IN EXIST PLT	GRASS ROOTS			%0 06	8.0%	0.072	
AREA/UNION INFLUENCE	STRONG	·	MILD	·	SOME		NONE			40.0%	10.0%	0.04	
NOTES											100.0%	91.2%	
1. TURNOVER HAS BEEN CONSIDERED	CONSIDERI	a			EFFICIENCY		(AS A % OFF CHART MANHOURS)	T MANHOUF	(\$)			91.2%	
2. FOR EXTERIOR WORK ONLY	ONLY		•		MULTIPLIE	:R - (TO BE	MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S)	HART M.H.	'S TO OBT)	AIN SITE M.H	(\$:1	1,10	
	1												_

EFFICIENCY FACTORS

PROJECT:

OSDF PLACEMENT FY07

ESTIMATE NO. C2-2001-05-006 37 CLIENT: WBS NO .:

1.1.C.D

Fluor Fernald, Inc.

DATE:

17-May-01

ESTIMATOR: T.WAGNER LOCATION: FERNALD TASK NO.: CCPL3

EXAMPLE:

STANDARD CHART MANHOURS =

NET

EFFICIENCY FACTORS:

SITE SPECIFIC (SEE APPENDIX A) S/T = BASE UNIT MANHOURS

10.0 110

OVERTIME PRODUCTIVITY FACTOR (SEE DETAIL WORKSHEET BACK-UP) 0.00%

TASK SPECIFIC (confined space, high elevation, congestion, etc.)

PPE SPECIFIC (Based on current data and estimating knowledge)

				PPE LEV	/EL					
		D	Mod.	'D'	Mod.	"C"	С		C+	
PRODUCTIVITY HOURS		MH's	MALTIPLIER	MH's	MALTIPLIER	MH's	MATTPLIER	MH's	MALTIPLIER	MH's
(ASA%)/ADD MH's	4.00%	4	28.00%	31	66.00%	73	74.00%	81	96.00%	. 10
(AS A MULTIPLIER)/TOTAL HR	1.04	114.4	1.28	140.8	1.66	182.6	1.74	191.4	1.96	215
OTAL MULTIPLIER WISITE PROD.	1.144		1.408		1.826		1.914		2.156	
NOTE: Use the De	 fault Produc	ctivity Eactor of	mC' for wa	rkina						
		a if the Safety Le		- 1	ed.					
(SEE FD FERNALD ES	TIMATING SE	RVICES REFEREN	CE MANUAL	IM-6006 8.10	,					
Total hours worked					? !				l i	
	ays to deter		ost of PPE's	3.		. •				
days = (PPE) ManD										
(SEE APPENDIX C	- HEALTH	PHYSICS)								
	- HEALTH		14.0	Man Days	18.0	Man Days	19.0	Man Days	22.0	Man Days

THESE EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY THROUGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL, TO OBTAIN A MORE ACCURATE ACCOUNT OF OVERALL EFFICIENCY IMPACT DUE TO PPE REQUIREMENTS IN HANDLING CONTAMINATED AND HAZARDOUS WASTE.

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT: OSDF PLACEMENT FY07

ESTIMATE NO. C2-2001-05-006 37

CLIENT: DOE WBS NO.: 1.1.C.D DATE:

17-May-01 ESTIMATOR: T.WAGNER

LOCATION: TASK NO .:

FERNALD CCPL3

PPE MULTIPLIER DEVELOPEMENT

		D	mD	mC	С	C+
CREW SIZE & MAKE-UP	STANDARD	7	7	7	7	7
	WORKER-BUDDY	0	0	o	0	0
	SUPPORT TEAM	0	· o	o	0	0
·	TOTAL CREW	7	7	7	7	7
CREW SIZE RATIO		1.00	1.00	1.00	1.00	1.00
AVAILABLE WORK TIME FA	ACTOR	0.96	0.78	0.7	0.7	0.68
PPE LABOR PRODUCTIVIT	Y FACTOR	1	1	0.86	0.82	0.75
NET PRODUCTIVITY RATIO)	0.96	0.78	0.602	0.574	0.51
NET PRODUCTIVITY MULT	TPLIER	1.04	1.28	1.66	1.74	1.96

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Selg. Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C. The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

AVAILABLE WORK TIME FACTOR		D	mD	mC	C	C+
TOTAL WORK MINUTES per D 24 10'S		600	600	600	600	600
ADDITN'L SITE SAFETY MEETINGS NOT INCLD. IN B	QUANTITY	1	1	1	1	1
	MINUTES	25	25	25	25	25
TOTAL		25	25	25	25	25
PPE DON & DOFFING	QUANTITY	0	0	.3	3	3
(ADJUST LEVEL D per WORK PLAN)	MINUTES	0	0	15	15	20
TOTAL			0	45	45	60
WORK BREAKS	QUANTITY	N/A	2	2	2	2
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	15
TOTAL			30	30	30	30
MOBILIZATION - ROUND TRIPS	QUANTITY	N/A	4	4	4	4
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	15
TOTAL			60	60	60	60
COOLDOWNS PER DAY	QUANTITY	N/A	4	4	4	4
** (4 OUT OF 12 MONTHS) 33.339	MINUTES	N/A	15	. 15	15	15
TOTAL			20	20	20	20
AIR TANK REPLACEMENT	QUANTITY	N/A	N/A	N/A	N/A	N/A
	MINUTES	N/A	N/A	N/A	N/A	N/A
TOTAL						
AVAILABLE WORK TIME		575	465	420	420	405
AVAILABLE WORK TIME FACTOR	1	0.96	0.78	0.7	0.7	0.68

NOTE: Adjust Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's. Any other circumstances, over-ride the minutes per day.

^{**} Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: **OSDF PLACEMENT FY07**

ESTIMATE NO. C2-2001-05-006 37

CLIENT: WBS NO .:

SUB-TOTAL

DOE

1.1.C.D

DATE:

17-May-01 **ESTIMATOR: T.WAGNER**

LOCATION: FERNALD TASK NO .: CCPL3

Fluor Fernald, Inc.

PPE"s - PERSONAL PROTECTIVE EQUIPMENT

•		UNIT		* NO. (OF CHANGE OU	TS PER WORKER	PER DAY
DESCRIPTION	UNIT	COST	Man Da	ys (TOTAL HOUR	S worked in PPE's C	Nv. by WORK HOURS	DAY)
PPE LEVEL C / C+ / B: F/HF MASK W/RESP.&CAF	RT.		*	MAN DAYS	MAT'L.\$'s	PPE LEVELY	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	0	\$0	≤ C / C+ ≪	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	0	\$0	C/C+;	(DOUBLE PPE)
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	0	\$0	C.I.C+	
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	0	\$0	C/C+	
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	0	\$0	C/C+	•
APR CARTRIDGES - DISPOSABLE	PR	\$6.98	3	0	\$0	C/C+	
SUB-TOTAL		\$17.42	3		250		
		•		\$/MD =		-	

PPE LEVEL mD: FULL DRESS				MAN DAYS	MAT'L.\$'s	PPECEVEL
LT.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIE\$	PR	\$4.46	3	1421	\$19,008	_mC ≥
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	1421	\$1,023	- mC
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	1421	\$1,108	mC
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	1421	\$4,347	SS mC

			QTY. PER	NO. OF		
SUBCONTRACTOR REQUIRED PURCHASES			WKR.	WORKERS	MAT'L.\$'s	PPELEVEL
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	\$12.70	6	8	\$610	#D/C/B
APR w/HALF FACE MASK - (1) PER WORKER	EA	\$22.30	6	0	\$0	· · · · · · ·
APR w/FULL FACE MASK - (1) PER WORKER	EA	\$174.00	6	0	\$0	C.
SCBA	EA	\$1,894.00	2	0	\$0	3 B.
COOL VESTS	EA	\$137.50	6	0	\$0	⇒j. C/B.
THERMO STRIPS	EA	\$50.00	6	0	\$0	C/B c
SUB-TOTAL					\$610	

TOTAL PPE's =

MAT'L.\$'s \$261100

(FORWARD TO PAGE 2 OF 2)

OTHER PPE'S SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. COSTS OF FD FERNALD SUPPLIED PPE'S, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCURRED BY FD FERNALD AND COSTS ARE NOT INCLUDED AS PART OF PROJECT COSTS AT THIS TIME.

APPENDIX "C"

HEALTH PHYSICS

PROJECT:

OSDF PLACEMENT FY07

ESTIMATE NO. C2-2001-05-006 37

CLIENT: WBS NO .: DOE 1.1.C.D

DATE:

17-May-01

ESTIMATOR: T.WAGNER

LOCATION: FERNALD

TASK NO.: CCPL3

-MEDICAL MONITORING -

MEDICAL - PHYSICAL and IN-V	VO MO	NITORING	- LOST	WORKER T	IME for RAD	WORKERS
					AVG.	
DESCRIPTION	QTY	HRS	WKR	TOTAL	LABOR	TOTAL
PHYSICAL (3hrs), IN-VIVO (1hr)				HOURS	RATE	LABOR \$
BASELINE PHYSICALS	1	4	9	36	\$27.91	\$1,000
ANNUAL PHYSICALS	0	4	9	0	\$27.91	\$0
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	9	9	\$27.91	\$250
SUB-TOTAL	*					\$17250

RADIATION IN-VITRO	SURVEILLA	NCE - LOS	T WOR	KER TIME f	or RAD II WO	RKERS ONLY
DESCRIPTION	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR \$
BI-MONTHLY BIOASSAY	6	1	9	54	\$27.91	\$1,500
SUB-TOTAL						\$1.500

RANDOM DRUG TESTING

	TESTS	HRS	TOTAL HOURS	AVG. RATE	LABOR \$'s	
	15	2	30	\$27.91	\$\$800	
NO. OF	TESTING	AVG. NO.	CHANCE/	NO. OF WKRS.	CHANCES	CONSTR
WKRS.	DAYS	OF TESTS	DAY	FOR THIS	DAY FOR TEST	WORKING
TESTED	PER YR.	PERDAY	FOR TEST	ESTIMATE	FOR PROJECT	DAYS
2340	226	10	0.0042735	16	0.0684	226

SAFETY LABOR \$'s WORK DELAYS CAUSED BY MONITORING 0.0% \$1,963,056	THRU				
LABOR \$'s	SAFETY	LABOR \$'s			
	\$1,963,056	£ \$0			
WORK DELAYS CAUSED BY DAD CHECKING A OV		LABOR \$'s			
WORK DELATS CAUSED BY RAD CHECKING 0.0% \$1,305,030 [最後 日本 日本 日本 日本 日本 日本 日本 日本 日本 日本 日本 日本 日本	\$1,963,056 \$2,000 \$0				
	TOTAL	TOTAL	GRAND		
WORK DELAYS CAUSED BY RAD CHECKING 0.0%		\$AFETY \$1,963,056 \$1,963,056	\$AFETY LABOR \$'s \$1,963,056 \$1,963,056 \$50		

\$3,600 \$29,700 \$29,700° (FORWARD TO ESTIMATE SUMMARY SHEET)

TOTAL HEALTH PHYSICS

ACTIVITY DURATIONS

Fluor Fernald, Inc.

PROJECT:

ESTIMATE NO. C2-2001-05-006 37

CLIENT: WBS NO.: DOE 1.1.C.D DATE:

ESTIMATOR: T.WAGNER

LOCATION: FERNALD

TASK NO .: CCPL3

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
CONSTRUCTION:	01-May-01	01-Oct-06	01-Apr-07	30-Sep-07	12.0	MONTHS
					0	MONTHS
TOTAL					12:0	MONTHS

	DATE of EST. to MID-POINT CTIVITY DURATION							
a.	71.1	MONTHS						
b.	0	MONTHS						

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. to MID-POINT CTIVITY DURATION					
0	MONTHS				

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

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•			

ESTIMATE SUMMARY SHEET

PROJECT:

OSDF PLACEMENT FY08

ESTIMATE #: C2-2001-05-006 38

CLIENT: WBS#:

DOE 1.1.C.D

Fluor Fernald, Inc.

DATE:

17-May-01 ESTIMATOR: T.WAGNER

LOCATION:	FERNALD
TASK NO.:	CCPL3

WES #: 1.1.C.D ITEM DESCRIPTION	M/H	RATE	LABOR \$	S/C \$	MAT'L \$	EQUIP. \$	TOTAL \$
Post Award Document (Bonds & Insurance)	T	T	1	\$71,600	1		\$71,600
Submittals	1,600		\$80,210				\$80,210
Overhead & Profit	.,,,,,	Ī	755,215	\$918,029			\$918,029
Off Hour Dust Control			l	\$20,000			\$20,000
Control & Management (separate estimate)		- 1	1	7=3,555			420,000
Site Prep	5,520	.	\$161,580	\$102,300	\$6,230	\$145,468	\$415,578
OMTA Operations (including shutdown)	9,369		\$250,750	*****	44,200	\$314,678	\$565,428
Removal of Impacted portion Haul Rd	141		\$3,770			\$5,800	\$9,570
Placement of 12" Protective Layer	705		\$18,850			\$9,710	\$28,560
Placement of 24" Select Layer	1,325	l	\$35,710			\$13,840	\$49,550
Placement of 36" Select Layer	2,312		\$62,790		\$480	\$32,940	\$96,210
Placement of CAT #1 1Q	2,570	. [\$69,262		*****	\$30,986	\$100,248
Placement of CAT #1 3&4Q	6,968		\$187,777			\$84,005	\$271,782
Placement of CAT #2 & #4 Above Grade 1Q	74		\$1,830			\$1,595	\$3,425
Placement of CAT #2 & #4 Above Grade 3&4Q	19,467		\$481,889	ļ		\$420,054	\$901,943
Placement of CAT #3 Palletized Transits 1Q	.5,75.	1	4.51,005			₩7£0,034	ψου 1,0 7 4
Placement of CAT #3 Palletized Transits 3&4Q	9,356		\$256,750			\$169,000	\$425,750
Placement of CAT #5 Friable Asbestos 1Q	5,555		4200,700	ĺ		Ψ103,000	4120,10
Placement of CAT #5 Friable Asbestos 3&4Q							
Placement of CAT #2 @ & Below Grade 1Q	1,964		\$53,756	i		\$51,133	\$104,889
Placement of CAT #28#4 @ & Below Grade 3&4Q	4,461		\$122,089	İ		\$116,133	\$238,22
Placement of CAT #5 Thorium/Soil Debris 1Q	7,70		V.ZZ ,000			\$110,100	4200,220
Placement of CAT #5 Thorium/Soil Debris 3&4Q	1		Ī	į			
The state of the s	l		.				
·	i		l	i			
				Ì			
			1				
DIRECT FIELD COSTS TOTAL	65,833	\$27.14	\$1,787,012	\$1,111,929	\$6,710	\$1,395,343	\$4,300,99
PM & GEN SUPER, SUP. ENG, QA, & SAFETY	4,288	\$33.69	\$144,480				\$144,48
	1						
	1			Ī			
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			ļ				
	1					·	
HEALTH PHYSICS	169		\$4,600		\$26,100	•	\$30,70
			,				
PAYROLL BURDENS & BENEFITS			\$1,103,600				\$1,103,60
	1						
		•		Ì			
SALES TAX	l				\$2,000	\$83,700	\$85,70
INDIRECT FIELD COSTS TOTAL	4,458		\$1,252,680		\$28,100		
DIRECT SINDIRECT FIELD COSTS TOTAL	70,291	\$43.24		\$1,111,929	\$34,810		
189 FC	انست						
1							

ESTIMA	TE SUMN	MARY SH	EET			
PROJECT: OSDF PLACEMENT FY08		•			DATE:	17-May-01
ESTIMATE NO.:C2-2001-05-006 38	ACTOR	RS			ESTIMATOR:	T.WAGNER
CLIENT: DOE WBS NO.: 1.1.C.D		t			LOCATION: TASK NO.:	FERNALD CCPL3
FIXED PRICE S	LABOR \$	S/C \$	MAT'L.\$	EQUIP. \$	PPE\$	TOTAL \$
DFC DOLLARS	\$1,787,012	\$1,111,929	\$6,710	\$1,395,343	\$26,100	\$4,327,094
IFC COST FACTOR	1.7010		1.0000	1.0000	-	
	1.0000	1.0000	1.0000	1.0000		
SALES TAX	•	• '	1.0600	1.0600	1.0600	
And the second s			-			
DIRECT FIELD COST FACTOR =	1.7010	1.0000	1.0600	1.0600	1.0600	
			and the same		A Roman Company	-
BASE ESTIMATE \$'S	\$3,039,692	\$1,111,929	\$7,113	\$1,479,063	\$27,666	\$5,665,463
	The same of the same of	the state of the contraction				
BASE FACTOR	1.0000		1.0000	1.0000	1.0000	
						A. A. C.
TARGET ESTIMATE FACTOR	1.7010	1.0000	1.0600	1.0600	1.0600	
		A STATE OF THE STATE OF			PART OF STREET	
FPS TARGET ESTIMATE (FY01 \$)	\$3,039,692	\$1,111,929	\$7,113	\$1,479,063	\$27,666	\$5,665,463
	Control of the control	Section of the section	with the state of the second	50 Sec. 30	THE PROPERTY OF	AND ADDRESS OF THE PARTY.

NOTE:

F THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

	E	STIMATE SUMN	ARY SHE	ET			
PROJECT:	OSDF PLACEMENT FY08	•				DATE:	17-May-01
ESTIMATE NO.	:C2-2001-05-006 38	DIRECT FIELD	COST			ESTIMATOR:	T.WAGNER
CLIENT:	DOE	W/FACTO	RS			LOCATION:	FERNALD
WBS NO.:	1.1.C.D			•		TASK NO.:	CCPL3
PAY ITEM NO.	DESCRIPTION	LABOR \$	S/C \$	MAT'L.\$	EQUIP. \$	PPE\$	TOTAL \$
1	Post Award Document (Bonds & Insura	(ASSIGN OR	PRORATE PP	E MAT'L.\$'S)>>	•	30700	
.•	. Ost / Ward Doddinent (Dones & mould		\$71,600				\$71,600
2	Submittals	80210					2100 110
		\$136,440					\$136,440
3	Overhead & Profit		918029				
			\$918,030	,			\$918,030
	Off United Direct Constant		20000				
4	Off Hour Dust Control		20000 \$20,000	·			\$20,000
			V,				420,000
6	Site Prep	161580	102300	6230	145468	2,906.32	
		\$274,850	\$102,300	\$6,600	\$154,200	\$3,080	\$541,030
7	ONTA Consistence (including abundanum)	250750			214670	4 540 20	
7	OMTA Operations (including shutdown)	250750 \$426,520	i .		314678 \$333,560	4,510.20 \$4,780	\$764,860
	•	V-720,020			4000,000	Ψ,,,ου	
8	Removal of Impacted portion Haul Rd	3770			5800	67.81	
		\$6,410			\$6,150	\$70	\$12,630
9	Discourant of 40th Books they I sugge	18850			9710	339.05	
9	Placement of 12" Protective Layer	\$32,060	1		\$10,290	1 .	\$42,710
		402,000		1	\$10,230		V12,110
10	Placement of 24" Select Layer	35710			13840	642.31	
		\$60,740		}	\$14,670	\$680	\$76,090
11	Discoursed of COS Colored Laure	60700		450	20040	4 400 00	
11	Placement of 36" Select Layer	62790 \$106,810		480 \$510			\$143,440
		4100,010			1 40.,020	. ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
12	Placement of CAT #1 1Q	69262			30986	.,	
		\$117,810)		\$32,840	\$1,320	\$151,970
12	Placement of CAT #1 3&4Q	187776.7777			84005.40054	3,377,51	
12	Flacement of CAT #1 304Q	\$319,410	1		\$89,050	1	\$412,040
l							
13	Placement of CAT #2 & #4 Above Grad	1830	3		1595	1	2
Ì	·	\$3,110	7		\$1,690	\$30	\$4,830
13	Placement of CAT #2 & #4 Above Grad	481889.338	7		420053.9811	8,667.67	
		\$819,690	3		\$445,260		
		1			· ·		
14	Placement of CAT #3 Palletized Transi					-	
				l			
14	Placement of CAT #3 Palletized Transi	25675	0	1	169000	4,618.12	
ł		\$436,73	0		\$179,140		\$620,77
15	Placement of CAT #5 Friable Asbestos					-	
15	Placement of CAT#5 Friable Asbestos					-	
1							
16	Placement of CAT #20#4 @ 9 Palama	5375	6		5113:	3 966.89	
10	Placement of CAT #2 @ & Below G	\$91,44	3		\$54,200	1	
		75.,41			757,201	7.,020	7.75,50
. 16	Placement of CAT #2 @ & Below G		i .		116133.333		
		\$207,67	0		\$123,10	0 \$2,330	\$333,10
17	Placement of CAT #5 Thorium/Soil Deb					_	
l "	- Addition of OAT #0 Intelligent Des	1					
17	Placement of CAT #5 Thorium/Soil Deb		1			-	
							1
TOTAL DIPE	CT FIELD COSTS W/FACTORS	(FY01 DOLI	ARS)				\$5,670,34
I O INE DIKE	OF FILED COOLS INFACIONS	(1,10, 000)	/				40,0,0,0

Cost Allocation for Baseli	ne Entry
1 Post Award	\$71,600
2 Submittal	\$136,440
Subtotal ·	\$208,040
3 Overhead & Profit	\$918,030
4 Off Hour Dust Control	\$20,000
6 Site Prep	\$541,030
Subtotal	\$561,030
7 OMTA Operations (including shutdown)	\$764,860
8 Removal of Impacted portion Haul Rd	\$12,630
Subtotal	\$777,490
9 Placement of 12" Protective Layer	\$42,710
10 Placement of 24" Select Layer	\$76,090
11 Placement of 36" Select Layer	\$143,440
12 thru 17 Quarter 1	\$303,460
12 thru 17 Quarter 3 & 4	\$2,640,050
Grand Total	\$5,670,340
Verify old total	\$5,670,340
Match %	100.00%

PROJECT: OSDF PLACEMENT FY08 ESTIMATE NO.: C2-2001-05-006 38 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

TEM	SLIMMARY	YTO	LINIT	Z	MAN-HOURS			COST / UNIT	TINO		LABOR	S/C	MATL	EQUIP	TOTAL
Š				S. S.	Total	Rate	Labor	S/C	Mati	Equip					
-	Post Award Document (Bonds & Insurance)											\$71,600			\$71,600
^	Submittals				1,600						\$80,210				\$80,210
												000			6018 000
က	Overhead & Profit											\$918,029			670'0160
4	Off Hour Dust Control											\$20,000			\$20,000
သ	Control & Management (separate estimate)														
60	Site Prep				5,520						\$161,580	\$102,300	\$6,230	\$145,468	\$415,578
7	OMTA Operations (including shutdown)				698'6			-			\$250,750			\$314,678	\$565,428
80	Removal of Impacted portion Haul Rd				141			_			\$3,770			008'5\$	\$9,570
6	Placement of 12" Protective Layer			,	705						\$18,850			\$9,710	\$28,560
5	Placement of 24" Select Layer				1,325						\$35,710			\$13,840	\$49,550
=	Placement of 36" Select Layer				2,312						\$62,790		\$480	\$32,940	\$96,210
12	Placement of CAT #1 1Q				2,570						\$69,262			\$30,986	\$100,248
12	Placement of CAT #1 3&4Q				6,968						\$187,777			\$84,005	\$271,782
€ (Placement of CAT #2 & #4 Above Grade 1Q				19 467						\$481,889			\$420,054	\$901,943
5 4	Placement of CAT #3 Palletized Transits 1Q														
14	Placement of CAT #3 Palletized Transits 3&4Q				9,356						\$256,750			\$169,000	\$425,750
15	Placement of CAT #5 Friable Asbestos 1Q							_							
15	Placement of CAT #5 Friable Asbestos 3&4Q				1 064						\$53.756			\$51,133	\$104,889
6 4	Placement of CA1 #2 @ & Below Grade 1C	- Q			4.461						\$122,089			\$116,133	\$238,222
2 4	Placement of CAT #5 Thorlum/Soll Debris 1Q											•			
11	Placement of CAT #5 Thorium/Soil Debris 3&40	٠ در -													
			10		08000	10.1/0					31074U2153	787,012 14,031,11,022		00000	(5)(90)(5)

PROJECT: OSDF PLACEMENT FY08 ESTIMATE NO.: C2-2001-05-006 38 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

TOTAL			080 080 86	\$50,130	017'00¢		\$20,000					
EQUIP												·
MAT'L												
S/C							\$20,000					÷
LABOR			000 000	\$50,130	\$80,210							
	Equip											
TIND	Mat'i											
COST/UNIT	S/C						20,000					
	Labor										•	
S	Rate		•	50.13 50.13		·						
MAN-HOURS	Total			1000	1600				•			
Ž	ii S		·	20.0 10.0		:						
OTY LUNIT		<u> </u>	R	ea			ည					
γLO			ii	100			ľ					
_		Post Award Documents Bonds & Insurance (calculated on summary)	Submittals 1709 use 6ea 30 with 30 & 10 for tech	Plans allowance Technical submittals allowance		Off Hour Dust Control		Control & Management (separate estimate)				
TEM	Ö.	-	. 2			4		v				

CONTRACTOR - Stated in FY01 DOLLARS

s:\wagner\ccpi3\baseline ccpi3 osdf placement fy08.xds

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY08 ESTIMATE NO.: C2-2001-05-006 38 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

																	· ·												
TOTAL			\$75,400	\$64,218	\$44,690		\$3,490	. \$600	\$1,390	\$1,080 \$1,010	\$780	\$1,050	\$620	\$380	64 300	8830	\$700	\$1,990	\$190	\$1,470	\$3,400	\$1,390	\$1,260	-	\$2,090	000	\$102,300	\$22,840	
EQUIP			\$75,400	\$64,218			\$1,000			\$1.040				\$380				\$1,990		\$1,470									£2
MAT'L	With the Maga							\$600			\$780								\$190		\$3,400		\$1,260						
S/C						٠																					\$102,300		
LABOR				CBO 440	\$44,690		\$2,490		\$1,390	009,1\$		\$1,050	\$620		9	0684	\$700	•				\$1,390			\$2,090			\$22,840	
	Equip		3,770	12.55			100.00			75 17	71.67		٠	25.17				99.74		73.62									
UNIT	Mat'i							0.30			2.50								15.50		2.83		35.00						
COST/UNIT	S/C	-																									102,300		
	Labor	%0Z																											The state of the s
Ø	Rate	 Rate + 20%			29.48		29.48			29.48		24.71	29.48			24.71						24.71			24.71			30.00	
MAN-HOURS	Total			0100	2/26 1516		85	!	20	99		42	21			၁ ၃	2 80					26			85			761	
_	Į.		7	7			9		-	- - 7	_	8	-	_	(N T			-	-		2			8			18	
TIND					E E		눌			= 3				È		E å			: \$			革	ea		효		<u>s</u>	눌	
a _T			10	2,559	1,935		10	2,000	49	40	312	15	15	15		20	2 6	2 6	12	20	1,200	20	36		ဓ		_	ଚ	
OSDF PLACEMENT FY08		6 SITE PREP	CAT 613 Water wagon (2ea)		Operator (9 months) Operator (5 months)	Site Prep	Mobilization of equipment	Silt fence	Laborer	_	CAT 416 backhoe			CAT 416 backhoe			<u> </u>	CAT 330 TracHoa	Type D Rip Rap	Haul Truck	Construction/RAD fencing 4' wire w/			Site prep		Survey	Survey crew	Training	Training based on HithPhys Sheet
PPE	Level				운 은				Om O	OE O		Qm	DE C			<u>۾</u>	<u>ا</u> ا	<u> </u>				Qu.			5				

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY08 ESTIMATE NO.: C2-2001-05-006 38

1.1.C.D CLIENT: WBS NO.:

Fluor Fernald, Inc.

															•								
TOTAL			\$59,600	\$20,740	\$37,710 \$22,500		\$164,420 \$121,931	\$57,346				68 350		\$565,428			\$1,990	\$2,340	\$1,470	\$1,660	\$700	\$9,570	
EQUIP			\$59,600	\$20,740			\$121,931	\$57,346						\$314,678			\$1,990	\$2,340	\$1,470			\$5,800	
MAT'L																							
S/C			٠																	-			
LABOR				\$19,770	\$37,710 \$22,500		\$164,420					04	2	\$250,750						\$1,660	\$1,410	\$3,770	
	Equip		107.95 99.74	37.57			73.62	34.62		ı							99.74	116.98	73.62				
UNIT	Mati																						
COST/UNIT	S/C				,			5 075 00	000000														
	Labor					%0; 										%00							
	Rate				20.59 24.57	 Rate + 20%	29.92					0				Rate + 20%					24.94	1	
MAN-HOURS	Total			916	1,832 916	•	5,495						7	9,369						56	56 28	141	
<	Cnit			-	7 -		2 +					ı	n				~	_	2	2	7 -		
TINO		·		보호				ه ځ :	2	ê			È		·		ځ				= =		Ŀ
QTY		080 08	552 552	552 650	650		1,949	1,656			,		05				20	8	70	20	2 2		
E OSDF PLACEMENT FY08			period (approx. 3 mo) CAT 973 Track Loader/4way bucket CAT 330 Excavator/grappler					CAT TH83 (9 mo)	Purchase of office trailer (8X12) F TU4 7 B Special for Lighting FY06 & FY07	Lighting double shift 2x5.5mx4	7 B Special for FY04 - FY08	Training & Hiring of 5 additional personnel for night shift	Training based on HithPhys Sheet	OMTA Operations (including shutdown)		8 Removal of Impacted portion	Of USDF had no (2 DATS X)	CAT D8 dozer	Haul Truck	Operator	Teamster 1	- 1	
PPE	Level			Ð.	윤		딭													밑	윤 (

CONTRACTOR - Stated in FY01 DOLLARS

s:\wagner\ccpi3\baseline ccpi3 osdf placement fy08.xds

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY08 ESTIMATE NO.: C2-2001-05-006 38 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

\$3,480 \$6,230 \$9,710 \$6,970 \$12,450	\$3,480 \$6,230 \$9,710 \$6,970 \$12,450 \$1,390	\$3,480 \$6,230 \$9,710 \$12,450 \$13,840	\$3,480 \$6,230 \$9,710 \$12,450 \$11,390 \$11,440 \$17,440	\$3,480 \$6,230 \$9,710 \$12,450 \$11,390 \$11,440 \$17,440 \$17,440		\$3,480 \$6,230 \$6,230 \$1,830 \$1,830 \$1,130 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,390 \$1,440 \$4,880 \$24,390 \$24,390 \$3,750 \$24,390 \$3,750 \$3,750 \$3,750 \$3,750 \$3,750 \$3,750 \$3,750 \$3,750 \$3,750 \$3,750 \$3,750 \$3,750 \$3,750 \$4,880 \$4,880 \$3,750 \$4,880 \$4,880 \$4,880 \$4,880 \$5,910 \$4,880 \$5,910 \$4,880 \$5,910 \$5,920 \$6,970	\$3,480 \$6,230 \$6,230 \$12,450 \$11,390 \$17,440 \$13,840 \$17,440 \$13,840 \$17,440 \$17,440 \$17,440 \$17,440 \$17,440 \$17,440 \$13,870	\$3,480 \$6,230 \$6,230 \$12,450 \$11,390 \$17,440 \$17,440 \$17,440 \$17,440 \$17,440 \$17,440 \$13,940 \$13,940 \$13,940 \$13,940 \$13,940 \$13,940
						\$480	\$480	\$480
						\$480	\$480	\$480
						\$480	\$480	\$480
						\$480	\$480	\$480
17.420	17,420 16,630 \$1,660	17,420 16,630 \$1,660 35,710	17,420 16,630 \$1,660 35,710	17,420 16,630 \$1,660 35,710	17,420 16,630 \$1,660 35,710 29,100 24,390 \$5,820	17,420 16,630 \$1,660 35,710 29,100 \$5,820 \$5,820	17,420 16,630 \$1,660 35,710 29,100 \$5,820 \$3,480	17,420 16,630 \$1,660 35,710 29,100 \$5,820 \$3,480
\$17.420	\$17,420 \$16,630 \$1,660	\$17,420 \$16,630 \$1,660 \$35,710	\$17,420 \$16,630 \$1,660 \$35,710	\$17,420 \$16,630 \$1,660 \$35,710	\$17,420 \$16,630 \$1,660 \$35,710 \$24,390 \$5,820	\$17,420 \$16,630 \$1,660 \$35,710 \$24,390 \$5,820 \$3,480	\$17,420 \$16,630 \$1,660 \$35,710 \$24,390 \$5,820 \$3,480	\$17,420 \$16,630 \$1,660 \$35,710 \$24,390 \$5,820 \$3,480
73.26 \$17,420								
40.98	40.98	73.26	73.26	73.26 73.26 10.98 10.98 10.98	1.26 1.26 1.38	2.26 398 398 398 398	3.26	<u>α</u> α α α α α α α α α α α α α α α α α α
					40 40 40		50	50
					5	73 40 40	50	50
			29			0.30	0.30	0.30
24.71	24.71 29.48 29.48	29.48 29.48	29.48 29.48 29.48 Rate + 20%			0.30	0.30	0.30
				29.48 29.48 Rate + 20%	29.48 29.48 Rate + 20% 29.48 24.71 29.48	24.71 29.48 29.48 24.71 29.48 24.71	29.48 29.48 Rate + 20% 29.48 24.71 29.48 24.71 29.48 0.30	29.48 29.48 Rate + 20% 29.48 24.71 29.48 24.71 29.48
705		705 564 56 1,325	705 564 56 56 1,325	705 24.71 564 29.48 56 29.48 1,325 Rate + 20%	705 24.71 564 29.48 56 29.48 1,325 Rate + 20% 987 29.48 987 24.71	705 24.71 564 29.48 56 29.48 1,325 Rate + 20% 987 29.48 987 24.71 197 29.48	705 24.71 564 29.48 56 29.48 1,325 Rate + 20% 987 29.48 987 24.71 197 29.48 0.30	705 24.71 564 29.48 56 29.48 1,325 Rate + 20% 987 29.48 987 24.71 197 29.48 0.30
hr 2.5 705	hr 2.5 705 hr 2.0 564 hr 1.0 56	hr 2.5 705 hr 2.0 564 hr 1.0 56 hr 1.0 56	hr 2.5 705 hr 1.0 564 hr 1.0 56 hr 1.0 56 hr hr	hr 2.5 705 24.71 hr 1.0 564 29.48 hr 1.0 56 29.48 hr 1.325 hr Rate + 20% hr 2.5 987 29.48	hr 2.5 705 24.71 hr 1.0 564 29.48 hr 1.0 56 29.48 hr 1.325 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 1.0 197 29.48	hr 2.5 705 24.71 hr 1.0 56 29.48 hr 1.325 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.5 987 29.48	hr 2.5 705 24.71 hr 1.0 56 29.48 hr 1.0 56 29.48 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.5 987 24.71 hr 2.0 141 24.71	hr 2.5 705 24.71 hr 1.0 56 29.48 hr 1.0 56 29.48 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.5 987 24.71 hr 2.0 141 24.71
	hr 2.0 564 hr 1.0 56	hr 2.0 564 hr 1.0 56 hr 1.0 56	hr 2.0 564 hr 1.0 56 hr 1.0 56 hr hr	hr 1.0 564 29.48 hr 1.0 56 29.48 1,325 hr Rate + 20% hr 2.5 987 29.48	hr 1.0 564 29.48 hr 1.0 56 29.48 hr 1.325 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 1.0 197 29.48	hr 1.0 564 29.48 hr 1.0 56 29.48 hr 1.325 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.0 141 24.71	hr 1.0 564 29.48 hr 1.0 56 29.48 hr 1.325 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.0 141 24.71	hr 1.0 564 29.48 hr 1.0 56 29.48 hr 1.325 hr 2.5 987 29.48 hr 2.5 987 29.48 hr 2.0 141 24.71 hr 2.0 141 24.71

PROJECT: OSDF PLACEMENT FY08 ESTIMATE NO.: C2-2001-05-006 38 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

TOTAL						99		\$180	250		280	096\$	\$180	28\$		00 2,500				\$34,036	\$20,180	\$16,180	\$7,480	\$13,820	\$47,170	\$39,530			t0 \$271,782.18	
EQUIP		-				\$1,170	\$45				₩ 				-	\$1,700	\$0.76508		\$70,100									986'08\$	\$84,005.40	
MAT'L																				9										
S/C																				\$34,036										
LABOR		•						\$180	\$200	\$910		096\$	\$180	\$870	3	\$3,800	\$1.71017				\$20,180	\$16,180	\$7,480	\$13,820	\$47,170	\$39,530		\$69,262	\$187,776.78	
	Equip					116.98	40.98				25.17								1,275											
COSTAUNIT	Mat'i																			0										
SOS	S/C																	***		90.00										
	Labor				50%													.20%			-									
38	Rate				Rate + 20%			25.91	3 24.71	29.48			7 25.91					 Rate + 20%								24.71				·····
MAN-HOURS	Total								28					35		=	0.0635	:							•	1,600		2570	8969	
	Cuit							0.5	2.0	2.2		2.3	0.5	2.5					10		1.0	0:	0.5	6.	3.0	3.0				
UNIT								10 hr		10 F		٠.	10 hr								8 74									<u></u>
αT						9	_	-	-	-		-	-	-					Ś	378	378	378	378	378	378	37		·		
OSDF PLACEMENT FY08		12	CAT #1	Placement of Impacted Mat'l	2,222 cy/day avg. 10hrs	CAT D8 dozer	CAT 563 Compactor		Laborer	Operator	CAT 330 Trac hoe	Operator	Foreman	Laborer	ICY = \$2.48	Subtotal for tunit	Unit rates	Double shift 5.5mo in FY06 & FY07 Portable light plants	10 links x 55m	Survey Crew	Supervisor	Safety	σA	Foreman	Operator	Laborer	Double shift Total FY08 & FY07	40.500 cv	ā	
PPE	Level							e e	<u>E</u>	5		ДШ	Q	E																

OSDF PLACEMENT FY08 PROJECT:

ESTIMATE NO.: C2-2001-05-006 38 CLIENT: DOE CLIENT:

1.1.C.D WBS NO.:

5

PPE

mD Operator mD Foreman mD Laborer

mD Laborer

Fluor Fernald, Inc.

DATE: 17-May-01 ESTIMATOR: T.WAGNER

LOCATION: FERNALD TASK NO.: CCPL3

\$4,230 \$2,203,830 \$5.708502 \$1,160 \$350 \$160 \$700 \$300 \$590 \$100 \$901,943 TOTAL \$1,160 \$350 \$160 \$300 1,970 \$1,595 \$420,054 \$2,658570 EQUIP MATIL S/C \$1,177,460 \$1,830 \$481,889 \$700 \$590 \$100 \$870 \$3.049933 LABOR 165.35 116.98 40.98 99.74 Equip Matil COST/UNIT S/C Labor Rate + 20% MAN-HOURS 24.71 24.71 25.91 24.71 74 19,467 28 35 91 47,566 0.1232 1.7 ATY UNIT 600 cy 158,000 cy OSDF PLACEMENT FY08 CAT #2 & #4 ABOVE GRADE unit costs Cell Placement 741 lcy CAT 826 CAT D8 CAT 563 compactor ICX = \$5.71 Subtotol for 1unit Total x's 521 units CAT 330 Track hoe

10 3&40

PROJECT: OSDF PLACEMENT FY08 ESTIMATE NO.: C2-2001-05-006 38 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

								,			
TOTAL			\$420 \$350	\$950 \$610 \$520	\$940 \$140		\$3,930 \$161,130	\$27.2917	\$425,750		
EQUIP				\$950 \$610			\$63,960	\$10.8333	\$169,000		
MAT'L											
S/C				·	•						
LABOR			\$420 \$350	. \$520	\$940 \$140		\$2,370	\$16.4583	\$256,750		
	Equip			63.28							
UNIT	Mat'l										
COST/UNIT	S/C										
	Labor	· %0:							-	· · · · · · · · · · · · · · · · · · ·	
S	Rate	Rate + 20%	14 29.484 14 24.71		29.48 25.91					·	
MAN-HOURS	Total	·	<u> 4</u>		32		3.541	-	9,356		
Σ	Unit		1.0	1.00	1.50						
FIND			ž ž	111	보보						
QTY			5 0	<u> </u>	15						
OSDF PLACEMENT FY08		14 CAT #3 Palletized Transite Placement	Place pallets (10hr day) 144icy Operator Laborer	Place Fill around & over paliets & grid 1708 cy (1.5day) CAT D6 dozer CAT 563 compactor	Operator Foreman	ICK = \$27.29	Subtotal = 1 grid	unit costs	1Q - cy 3&4Q 15,600 cy		
BPE	Level		일 일	C	일 일						

				600	\$630		\$1.470		64480	9	\$330	\$560	\$50	\$20		\$330	\$280	0/#	\$100	\$280	\$210	\$160	\$20		18,0/0	9409,890	\$24.16168		
						\$1 99U	81 470	0,4,0	2				\$50						\$100			\$160		4	\$4,180	\$238,250	\$12.51497		
																				,									_
				0	4830	00/¢			0	#180 #180	\$330	\$560	-	\$70		\$330	\$280	870		\$280	\$210		\$20	9	\$3,890	\$221,730	\$11.64671		_
	Equip					. 00	1 66.79	73.62	20.48				25.17						25.17			40.98							
	Mati																												_
	S/C																												
	Labor		% 0:																				-,						_
	Rate		Rate + 20%		29.48					25.91		24.40		25.91		29.48	24.71	25.91			29.48		25.91						
	Total				28	78	•	42	1	7	7	- 66	3	ന		=	11	m i		=	7		7		88	10,723	0.5632		
	i 5	<u> </u>			0.	1:0	,	1.50		0.25	-	- 6	3.0	0.25		1.00	1.00	0.25		2.00	1.25		0.25						_
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3					2	2 2	2 3	20	20	20	· ·	-		4 60			8	®		- 4	4	4	80						
INI LIUO				(trench)																								cy	ک
CSUL PLACEMENT PIOS		15 CAT #5	Friable Asbestos 334cy	Excavate 10 trenches (2hr/trench)	Operator	Laborer	CAT 330 Trakhoe	OSI	Trencher	Foreman	Placement .	Operator	Laborer	CAT 416 BKH00	Tranch	Operator	Laborer	Foreman	Backfill	CAI 416 BKH08	Onerator	CAT 563 compactor	Foreman	ICX = \$24.16	Subtotal for 1 grid	Total times 57 grids	unit costs	1م	3840
7	Level			_=_		잍										<u></u>			 	2							Ц		

DATE:

OSDF PLACEMENT FY08 ESTIMATE NO.: C2-2001-05-006 38 PROJECT:

1.1.C.D WBS NO.:

BPE Level

Fluor Fernald, Inc.

\$104,889 \$238,222 \$1,326,400 \$580 \$200 \$50 \$350 \$420 \$3.5556 ESTIMATOR: T.WAGNER LOCATION: FERNALD TOTAL TASK NO.: CCPL3 \$51,133 \$116,133 \$580 \$200 \$780 \$646,620 \$1,7333 EQUIP MATIL S/C \$679,780 \$53,756 \$122,089 \$50 \$350 \$420 \$1.8222 LABOR 116.98 40.98 Equip Matil COST/UNIT ၁/Տ Labor Rate + 20% 25.91 24.71 29.48 Total Rate MAN-HOURS 1.4 14.1 30.0 24839 0.0666 1,964 1.0 0.50 0.25 Ziit QTY UNIT 1111 2 2 2 2 2 29,500 cy 67,000 cy 16 CAT #2 & #4 At & Below Grade OSDF PLACEMENT FY08 unit costs Placement 1 Grid / shift = 450cy

Total times 829 grid

38.40 40

Subtotal for 1 grid

icx = \$3.56

mD Foreman mD Laborer mD Operator

CAT 563 compactor

CAT D8

CONTRACTOR - Stated in FY01 DOLLARS

s:\wagner\ccpi3\baseline ccpi3 osdf placement fy08.xis

DETAIL ESTIMATE WORKSHEETS

PROJECT: OSDF PLACEMENT FY08 ESTIMATE NO.: C2-2001-05-006 38 CLIENT: DOE WBS NO.: 1.1.C.D

Fluor Fernald, Inc.

17-May-01 DATE:

T.WAGNER	FERNALD	CCPL3
ESTIMATOR:	LOCATION:	TASK NO.:

Rate + 20% Rate + 20% 7 29.48 9 24.71 5 1 25.91 6 24.71 6 8 29.48 7 28.48 7 29.48 7 29.48 7 29.48 7 204.5 7 204.5 4,089 0.327120	OSDF PLACEMENT FY08		יוט ידס	TINO	MAN	MAN-HOURS			COST	COSTAUNIT	ding.	LABOR	S/C	MAT'L	EQUIP	TOTAL
7 29.48 \$570 \$500 \$500 7 24.51 \$67 \$500 \$500 \$500 7 25.91 \$2,150 \$2,150 \$30 8 24.71 \$2,150 \$30 \$300 1 25.91 \$1,200 \$1,500 \$1,500 6 24.71 \$1,000 \$1,500 \$1,600 8 29.46 \$1,200 \$2,160 \$2,600 8 \$2,000 \$2,100 \$2,600 \$2,600 9 \$1,000 \$1,000 \$1,600 \$1,600 104.5 \$1,000 \$1,000 \$1,000 \$1,000 104.5 \$1,000 \$1,000 \$1,000 \$1,000 104.5 \$1,000 \$1,000 \$1,000 \$1,000	Unit	ວິ	ວົ	5	4	Total	Rate	Labor	S/C	Mati	Eduip					
Raie + 20% Said	17															
7 29.48 \$5210 \$5770 \$5500 \$5500 \$574 \$5700	CAT #5					-	?ate + 2 •	 %0:								
7 29.46 \$170 \$170 \$500 \$500 \$74 \$1200 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$1	Thorium / Thorium Soil Debris															
7 29.48 \$170 \$500 \$500 \$74 \$500 \$2.150 \$2.500 \$8 \$24.71 \$500 \$2.250 \$8 \$24.71 \$500 \$2.250 \$8 \$24.71 \$25.91 \$24.00 \$2.250 \$24.00 \$2.250 \$24.72 \$2.250 \$2.250 \$24.00 \$2.24.72 \$2.250 \$2.250 \$2.250 \$2.24.72 \$2.250 \$2.24.00 \$2.24.72 \$2.250 \$2.24.00 \$2.24.72 \$2.24.00 \$2.24.00 \$2.24.72 \$2.24.00 \$2.24.00 \$2.24.72 \$2.24.00 \$2.24.72 \$2.24.00 \$2.24.72 \$2.24.00 \$2.24.72 \$2.24.00 \$2.24.72 \$2.250 \$2.24.72 \$2.24.00 \$2.24.72 \$2.24	625 cy / grid															
7 24.46 7 24.71 2 25.91 8 24.71 8 26.00 8 25.00 8 24.71 8 29.74 8 29.74 8 29.74 8 29.74 8 29.74 8 29.74 8 29.74 8 29.74 8 29.74 8 29.74 8 29.74 8 29.74 8 29.74 8 29.74 8 29.74 8 29.74 8 29.70 8 29.74 8 29.70 8 29.74 8 29.70 8 29.74 8 29.70 8 29.74 8 29.70 8 29.7	Trench method															
7 7 29.48 \$170 \$5210 \$5500 \$5 7 2 24.71 \$500 \$5 7 2 24.71 \$500 \$5 7 2 25.91 \$5.00 \$5 8 24.71 \$5 8 24.71 \$5 1 25.91 \$5 8 2 24.71 \$5 1 2 5.91 \$5 8 2 24.71 \$5 8 2 24.71 \$5 8 2 24.71 \$5 8 2 24.71 \$5 8 2 24.71 \$5 8 2 24.71 \$5 8 2 24.71 \$5 8 2 24.71 \$5 8 2 24.71 \$5 8 2 24.71 \$5 8 2 24.71 \$5 8 2 24.71 \$5 8 2 24.71 \$5 8 2 24.71 \$5 8 2 24.71 \$5 8 2 24.71 \$5 8 2 24.00 \$5 8 2 24.71 \$5 8 2 24.00 \$5 8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2							,						,			6040
7 24.71 7 24.71 7 24.71 7 24.71 8 24.71 8 24.71 8 24.71 8 24.71 8 24.71 8 24.71 8 24.71 8 24.00 8 25.00 8 26.00 8 26.00 8 26.00 8 26.00 8 26.00 8 26.00 8 26.00 8 26.00 8 26.00 8 2	Operator 5 hr	=		-	0.	<u></u>	29.48					01.24	•			94.10
2 25.91 \$500 \$500 \$500 \$70 \$70 \$70 \$70 \$70 \$70 \$70 \$70 \$70 \$	늘 .	늘 .		•	0.		24.71					D (1.4)				9
79 \$2,150 \$2,150 \$300 \$3 8 24.71 \$300 \$31,500 \$3 1 25.91 \$300 \$31,500 \$3 1 25.91 \$40.88 \$40 8 29.48 \$40.89 \$40 8 29.48 \$40.89 \$5,500 \$3 204.5 \$20.48 \$40.89 \$5,500 \$3 204.5 \$20.48 \$300 \$31,000 \$32,100 8 20.48 \$20.48 \$3136,000 \$32,100 8 20.48 \$32,100 8 20.48 \$32,100	10 r	<u>ا</u> ځ		0	52	N	25.91									0000
204.5 204.6 204.6	C	L			+	70					93./4				\$2,500	\$4.650
1 25.91 8 24.77 48 24.71 1 25.91 6 24.71 8 29.74 1 25.91 6 24.71 8 29.74 1 25.91 8 29.74 1 25.91 8 29.74 1 25.91 8 29.74 1 25.91 8 29.74 1 25.91 8 24.00 8 240 8 240 8 240 8 240 8 240 8 240 8 240 8 250 8 250 8 250 8 250 8 250 8 27,600 8 22,600 8 52,600	Total for 5 trenches		+	1	+	E .						25,129			2001	
204.5 20.327120 1 25.91 204.5 204	ebris/Soll 1.5' deep															6
204.5 204.5	בֿ	בֿ	_	_	o.						99.74				9300	0054
48 \$1,500	- P	노 1		9,	ທຸດ	- 0	25.91					\$30				\$30 \$210
1 25.91 6 24.71 8 29.48 78 29.48 78 20.45 78 20.45 78 20.45 78 20.45 78 20.45 78 5.500 4,089 78 8.8000 85.400 82.400 \$2.800 \$2.800 \$5.500 \$5.500 \$10.8800 \$110.000 \$110.8800 \$110.8800	= 2	=	1	"	<u> </u>	0 8	24:11					\$1,200			\$1.500	\$2.700
1 25.91 \$400 6 24.71 \$140 8 29.48 \$40 78 2.150 \$5.260 \$5.40 4,089 \$110,000 \$19.	Total for 5 trenches				+	2					_					
1 25.91 \$40 \$10.00 6 24.71 \$140 \$160 8 29.48 \$250 \$2,150 \$2,800 78 \$2,150 \$10,000 \$136,000 \$24 4,089 \$10,000 \$10,8800 \$10,8800 \$19.	Backfill		-												007	. 001
1 25.91 \$40.98 \$40 6 24.71 \$140 \$140 78 \$250 \$2,800 \$1,800 704.5 \$2,500 \$10,800 \$136,000 \$136,000 \$136,000 \$140 6 \$24,089 \$10,000 \$136,000 \$136,000 \$140	4										99.74				\$400	\$400 8400
204.5 4,089 0.327120 20.327120 20.4.5 20.4.5 4,089 6,24.0 4,089 6,2500 4,089 8,10,000 \$8,8000 \$10,8800 \$10,8800	4 nr	= :		č			,				40.98				*	9
204.5 4,089 0.327120 8,250 \$2,150 \$2,150 \$5,500 \$10,000 \$136,000 \$10,8800 \$10,8800	Foreman	<u> </u>		, c	<u> </u>	- u	24.74		,			8140				\$140
78 \$2,150 \$2,800 204.5 \$5,500 \$6,800 4,089 \$110,000 \$136,000 6.327120 \$8.8000 \$10.8800	mD Laborer 4 III	= =			200	0 60	29.48					\$250				\$250
\$5,500 \$110,000 \$8.8000 \$8.8000	Strenches		_	1	+	78						\$2,150			\$2,800	\$4,950
\$5,500 \$110,000 \$8,8000 \$10,8800	ICY = \$19.68															
\$110,000 \$136,000 \$10.8800 \$10.8800	Sublatal for 1 and	-				204.5						\$5,500	-		\$6,800	\$12,300
\$8.8000	Total times 20 arids		L	1	\vdash	4,089						\$110,000			\$136,000	\$246,000
	unit costs			ı	Ö	327120						\$8.8000			\$10.8800	\$19.6800
	•															
	384Q - cy															

CONTRACTOR - Stated in FY01 DOLLARS

s:\wagner\ccpi3\baseline ccpi3 osdf placement fy08.xis

DETAIL ESTIMATE WORKSHEETS

Fluor Fernald, Inc.

DATE: 17-May-01
ESTIMATOR: T.WAGNER
LOCATION: FERNALD
TASK NO.: CCPL3

PROJECT: OSDF PLACEMENT FY08 ESTIMATE NO.: C2-2001-05-006 38 CLIENT: DOE

WBS NO.:

1.1.C.D

_				
TOTAL		\$21,540 \$14,980 \$32,650 \$17,520 \$27,760 \$30,030	\$144,480	
EQUIP				
MAT'L				
S/C				
LABOR		\$21,540 \$14,980 \$32,650 \$17,520 \$27,760 \$30,030	\$144,480	
	Equip			
TIND	Mati			
COSTAUNIT	S/C			
	Labor			
တ္သ	Rate	54.42 37.85 32.99 33.19 28.05 30.34 19.31 14.58	33.69	
MAN-HOURS	Total	396 396 990 528 990 990	4,288	
Σ	Cait			
LIND		4444		·
ΔI		Shared percent 30.0% 30.0% 37.5% 40.0% 37.5% ead ead		
A DA DA BO BONE THE PROPERTY OF THE PROPERTY O		Project Staffing Project Manager General Superintendent Superintendent Project Engineer Quality Engineer Safety Engineer Confroe Administration In overhead Cierical In overhead	TOTAL	
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STATE SPECIFIC CONTINUENCY STATE SPECIFIC						APPENDIX	. VION						
1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	2	EMENT FYO	80			SITE SF	PECIFIC				41	DATE: 17-May-01 ESTIMATOR: T.WAGNER	17-May-01 T.WAGNER
(NOTE 1) POOR 50% 60% 70% (NOTE 1) POOR FAIR	CLIENT: DOE WBS NO.: 1.1.C.D	90			EFFICIEN	ICY / MULTI	PLIER AN	YLYSIS				LOCATION: TASK NO.:	FERNALD CCPL3
NOTE 1)	PERCENT OF INF		N CHART MA	ANHOURS							WWW.WWW		
(NOTE 1) POOR FAIR (NOTE 1) SEVERE ICE/SNOW ATION			20%	%09	70%	80%	%06	100%		110%	% OF NELUENCE	WTD VALUE	PROD. RESULT
(NOTE 1) POOR FAIR (NOTE 1) SEVERE ICE/SNOW TE 2) SEVERE ICE/SNOW ATION ATION OVER ATION OVER IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII											RICE STREET, NO.		
TE 2) SEVERE ICE/SNOW THE 2) SEVERE ICE/SNOW ATION ATI	CRAFT SKILL (NOTE 1)	POOR			FAIR			STD	V.G00D	XCELLEN	.00.001	12.0%	0.12
TE 2) SEVERE ICE/SNOW ATION OVER 10,000FT C	CRAFT AVAIL.(NOTE 1)		POOR		FAIR			STD			100.0%	8.0%	0.08
RK WEEK IIIIIIIIIIIIII IIIIIIIIIIIII OVER 3 TO 7 IIIIIIIIIIIIIIII IIIIIIIIIIIIII OVER 3 TO 7 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			%0.06	20.0%	0.18
RK WEEK III MULTIPLE SHIFTS- RK WEEK III MULTIPLE-SHIFT IIIIIIIIIII T WEEKS IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	PLANT ELEVATION		OVER 10,000FT			5,000° TO 10,000 FT		UNDER 6,000 FT			.100.0%	2.0%	0.05
RK WEEK III MULTIPLE-SHIFT IIIIIIIIIII RK WEEK IIIIIIIIIIIIIIII IIIIIIIIIIIIII 1 TWEEKS IIIIIIIIIIIIIIIIII IIIIIIIIIIIIIII 1 TWEEKS IIIIIIIIIIIIIIIIIIIIIII IIIIIIIIIIII	WORK SPACE		-		200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	0.1
RK WEEK IIIIIIIIIIIII IIIIIIIIIIIII TWEEKS RK WEEK IIIIIIIIIIIIII TWEEKS TO THIIIIIIIIIIIII TWEEKS TO THIIIIIIIIIIIIII IIIIIIIIIIIIIIIIIII	WORK WEEK	WOL 1	IFLE SHIFT					4-10s / 5-8s			.: 100:0%	15.0%	0.15
STRONG MILD ONLY MINIMUM MINIMUM MINIMUM TWEEKS WEEKS SRD SHIFT ONLY ONLY ONLY	60 HOUR WORK WEEK	WINNINN WIN	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		OVER 7 WEEKS	3 TO 7 WEEKS	UP TO				%0'0	%0.0	•
STRONG MILD CONSIDERED	60 HOUR WORK WEEK				3 TO 7 WEEKS	UP TO 3 WEEKS					0.0%	0.0%	•
STRONG MILD CONSIDERED	SHIFTWORK 2ND SHIFT 3RD SHIFT			3RD SHIFT		2ND SHIFT		OR ONE SHIFT ONLY			% 000 100 0%	3.0%	0.03
STRONG MILD ONLY CONSIDERED	PROJECT SIZE				·	400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		%0 001	4.0%	0.04
STRONG MILD CONSIDERED ONLY	PLANT TYPE				REVAMP	REVAMP & NEW		GRASS			%0:06 ***********************************	8.0%	0.072
 RIOR WORK ONLY	AREA/UNION INFLUENCE	STRONG	·	MILD		SOME		NONE			40.0%	10.0%	0.04
	NOTES		!								!	100.0%	91.2%
	1. TURNOVER HAS BEEN	CONSIDERE	a			EFFICIENC		1 % OFF CHAR	T MANHOU	RS)			91.2%
MULTIPLIER - (TO BE APPLIED TO CHART M.H.S TO UBITAIN SITE M.H.S)	2. FOR EXTERIOR WORK	ONLY				MULTIPLIE	:R - (TO BE	APPLIED TO	SHART M.H	'S TO OBT	AIN SITE M.H	(8)	1.10

EFFICIENCY FACTORS

PROJECT: OSDF PLACEMENT FY08 ESTIMATE NO. C2-2001-05-006 38

CLIENT: WBS NO.: DOE 1.1.C.D

DOE

Fluor Fernald, Inc.

DATE: 17-May-01
ESTIMATOR: T.WAGNER
LOCATION: FERNALD
TASK NO.: CCPL3

EXAMPLE:

STANDARD CHART MANHOURS = NET 100

EFFICIENCY FACTORS:

* SITE SPECIFIC (SEE APPENDIX A) 10.0

S/T = BASE UNIT MANHOURS 110

OVERTIME PRODUCTIVITY FACTOR 0.00% 0

(SEE DETAIL WORKSHEET BACK-UP) 110

* TASK SPECIFIC (confined space, 0.0% 0

PPE SPECIFIC (Based on current data and estimating knowledge)

high elevation, congestion, etc.)

				PPE LEV	ÆL.					
		D	Mod.	D,	Mod.	"C"	С		C	,
PRODUCTIVITY HOURS		MH's	MULTIPLIER	MH's	MALTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's
(ASA%)/ADD MH's	4.00%	4	28.00%	31	66.00%	73	74.00%	81	96.00%	106
(AS A MULTIPLIER)/TOTAL HR	1.04	114.4	1.28	140.8	1.66	182.6	1.74	191.4	1.96	215.6
TOTAL MULTIPLIER W/SITE PROD.	1.144		1.408		1.826		1.914		2.156	
NOTE: Use the De in a contan (SEE FD FERNALD ES	ninated area	a if the Safety Le	vel cannot	be determin	'					
Total hours worked days ≖ (PPE) ManD (SEE APPENDIX C	ays to deter	rmine material c	-						·	
	11.0	Man Days	14.0	Man Days	18.0	Man Days	19.0	Man Days	22.0	Man Days

110

THESE EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY THROUGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL, TO OBTAIN A MORE ACCURATE ACCOUNT OF OVERALL EFFICIENCY IMPACT DUE TO PPE REQUIREMENTS IN HANDLING CONTAMINATED AND HAZARDOUS WASTE.

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT:

OSDF PLACEMENT FY08

ESTIMATE NO. C2-2001-05-006 38

CLIENT: WBS NO .:

DOE 1.1.C.D

DATE:

17-May-01

ESTIMATOR: T.WAGNER LOCATION: TASK NO.:

FERNALD CCPL3

PPE MULTIPLIER DEVELOPEMENT

		D	mD	mC	С	C+
CREW SIZE & MAKE-UP	STANDARD	7	7	7	7	7
	WORKER-BUDDY	0	o	. 0	o	0
	SUPPORT TEAM	0	0	0	0	
	TOTAL CREW	7	7	7	7	7
CREW SIZE RATIO		1.00	1.00	1.00	1.00	1.00
AVAILABLE WORK TIME FA	ACTOR	0.96	0.78	0.7	0.7	0.68
PPE LABOR PRODUCTIVIT	Y FACTOR	1	1	0.86	0.82	0.75
NET PRODUCTIVITY RATIO)	0.96	0.78	0.602	0.574	0.51
NET PRODUCTIVITY MULT	IPLIER	1.04	1.28	1.66	. 1.74	1.96

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Selg. Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C. The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

AVAILABLE WORK TIME FACTOR		D	mD	mC	C	C+
TOTAL WORK MINUTES per D 4 10's		600	600	600	600	600
ADDITN'L SITE SAFETY MEETINGS NOT INCLD. IN BA	QUANTITY	1	1	1	1	1
	MINUTES	25	25	25	25	25
TOTAL		25	25	25	25	25
PPE DON & DOFFING	QUANTITY	0	0	3	3	3
(ADJUST LEVEL D per WORK PLAN)	MINUTES	· 0	0	15	15	20
TOTAL			0	45	45	60
WORK BREAKS	QUANTITY	N/A	2	2	2	2
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	15
TOTAL			30	30	30	30
MOBILIZATION - ROUND TRIPS	QUANTITY	N/A	4	4	4	4
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	15
TOTAL			60	60	60	60
COOLDOWNS PER DAY	QUANTITY	N/A	4	4	4	4
** (4 OUT OF 12 MONTHS) 33.33%	MINUTES	N/A	15	15	15	15
TOTAL			20	20	20	20
AIR TANK REPLACEMENT	QUANTITY	N/A	N/A	N/A	N/A	N/A
·	MINUTES	N/A	N/A	N/A	N/A	N/A
TOTAL						
AVAILABLE WORK TIME		575	465	420	420	405
AVAILABLE WORK TIME FACTOR		0.96	0.78	0.7	0.7	0.68

NOTE: Adjust Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's. Any other circumstances, over-ride the minutes per day.

^{**} Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances.

HEALTH PHYSICS

PROJECT:

OSDF PLACEMENT FY08

ESTIMATE NO. C2-2001-05-006 38

CLIENT: WBS NO.: DOE

1.1.C.D

DATE:

17-May-01

ESTIMATOR: T.WAGNER

LOCATION: FERNALD

TASK NO.: CCPL3

Fluor Fernald, Inc.

PPE"s - PERSONAL PROTECTIVE EQUIPMENT

·		דואט		* NO. 0	OF CHANGE OUT	IS PER WORKER	PER DAY
DESCRIPTION	UNIT	COST	Man Da	ys (TOTAL HOUR	S worked in PPE's D	lv. by WORK HOURS	(DAY)
PPE LEVEL C / C+ / B: F/HF MASK W/RESP.&CAR	т.		*	MAN DAYS	MAT'L\$'s	PPE LEVELS	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	. 0	\$0	C/C+	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	\$4.46	3	0	\$0	C1,0+	(DOUBLE PPE)
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	0	\$0	C/.C+	
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	0	\$0	C/C/CFI	
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	0	\$0	C/C+	
APR CARTRIDGES - DISPOSABLE	PR	\$6.98	3	0		C/,C+,, 3	
SUB-TOTAL		\$17.42	3	·	\$0		
				\$/MD =	\$0.00		
PPE LEVEL mD: FULL DRESS				MAN DAYS	MAT'L.\$'s	PPE LEVEL	
LT.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIES	PR	\$4.46	3	1421	\$19,008	mC -	•
GLOVE LINER - DISPOSABLE	PR	\$0.24	3	1421	\$1,023	one mC	
GLOVE, LASTEX - DISPOSABLE	PR	\$0.26	3	1421	\$1,108	-CmC	
GLOVE, WORK - DISPOSABLE	PR	\$1.02	3	1421	\$4,347	===mC	
SUB-TOTAL		\$5.98	3		\$25,486		
				\$/MD =	\$17.94		
			QTY.		1		
			PER	NO. OF			
SUBCONTRACTOR REQUIRED PURCHASES			WKR.	WORKERS	MAT'L\$'s	PPELEVEL	
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	\$12.70	6	8	\$610	D/C/B	
APR w/HALF FACE MASK - (1) PER WORKER	EA	\$22.30	6	. 0	\$0	CC	
APR w/FULL FACE MASK - (1) PER WORKER	EA	\$174.00	6	0	\$0	- C	
SCBA	EA	\$1,894.00	2	0	\$0	- B	
	EA	\$137.50	6	0	\$0	C/B	
COOL VESTS						A. C. S. Later Berry S. April S. C. C.	
COOL VESTS THERMO STRIPS	EA	\$50.00	6	0	\$0	C/B	

TOTAL PPE's =

MAT'L.\$'s \$26,100

(FORWARD TO PAGE 2 OF 2)

OTHER PPE'S SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. COSTS OF FD FERNALD SUPPLIED PPE'S, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCURRED BY FD FERNALD AND COSTS ARE NOT INCLUDED AS PART OF PROJECT COSTS AT THIS TIME.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: **OSDF PLACEMENT FY08**

CLIENT: WBS NO.: DOE 1.1.C.D

ESTIMATE NO. C2-2001-05-006 38

DATE: 17-May-01 ESTIMATOR: T.WAGNER LOCATION: FERNALD

TASK NO.: CCPL3

-MEDICAL MONITORING -

MEDICAL - PHYSICAL and IN-V	IVO MO	NITORING	- LOST	WORKER T	IME for RAD	II WORKERS (ONLY
·					AVG.		
DESCRIPTION	QTY	HRS	WKR	TOTAL	LABOR	TOTAL	
PHYSICAL (3hrs), IN-VIVO (1hr)				HOURS	RATE	LABOR \$	
BASELINE PHYSICALS	1	4	9	36	\$27.14	\$980	
ANNUAL PHYSICALS	1	4	9	36	\$27.14	\$980	
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	9	9	\$27.14	\$240	
SUB-TOTAL						\$2,200	

RADIATION IN-VITE	RO SURVEILLAI	NCE - LOS	T WOR	KER TIME fo	or RAD II WO	RKERS ONLY
DESCRIPTION	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR \$
BI-MONTHLY BIOASSAY	6	1	9	54	\$27.14	\$1,470
SUB-TOTAL						\$1,470

RANDOM DRUG TESTING

 •	711D O 111 D 1					
	TESTS	HRS	TOTAL HOURS	AVG. RATE	LABOR \$'s	
	16	2	32	\$27.14	\$900	
NO. OF	TESTING	AVQ, NO.	CHANCE/	NO, OF WKRS.	CHANCES	CONSTR
WKRS.	DAYS	OF YESTS	DAY	FOR THIS	/DAY FOR TEST	WORKING
TESTED	PER YR.	PER DAY	FOR TEST	ESTIMATE	FOR PROJECT	DAYS
2340	226	10	0.0042735	16	0.0684	227

	LABOR \$'\$ THRU SAFETY LABOR \$'\$	
WORK DELAYS CAUSED BY MONITORING 0.0%	\$1,787,012	
	LABOR \$'s	
WORK DELAYS CAUSED BY RAD CHECKING 0.0%	\$1,787,012 微粒子放送器\$0	
	TOTAL TOTAL GRAND LABOR MAT'L. TOTAL	
TOTAL HEALTH PHYSICS	\$4,600 \$26,100 \$30,700	

(FORWARD TO ESTIMATE SUMMARY SHEET)

ACTIVITY DURATIONS

Fluor Fernald, Inc.

PROJECT:

OSDF PLACEMENT FY08

CLIENT:

ESTIMATE NO. C2-2001-05-006 38 DOE

WBS NO .:

1.1.C.D

.17-May-01

ESTIMATOR: T.WAGNER

LOCATION: FERNALD

TASK NO .: CCPL3

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
CONSTRUCTION:	01-May-01	01-Oct-07	31-Mar-08		12.0	MONTHS
				50,420 E9.24	0	MONTHS
TOTAL					12.0	MONTHS

	DATE of EST. to	
a.	83.1	MONTHS
b.	0	MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					. 0	MONTHS

DATE of EST. to MID-POINT CTIVITY DURATION						
0	MONTHS					

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

				,

ESTIMATE SUMMARY SHEET

PROJECT:

OSDF PLACEMENT FY09

CLIENT:

ESTIMATE #: C2-2001-05-06 39

Fluor Fernald, Inc.

DATE:

17-May-01

ESTIMATOR: T.WAGNER

LOCATION: FÉRNALD

WBS #: 1.1.C.D							CCPL3
ITEM DESCRIPTION	M/H	RATE	LABOR \$	S/C \$	MAT'L\$	EQUIP. \$	TOTAL \$
Post Award Document (Bonds & Insurance)	1	- 1		\$27,100		. [\$27,100
Submittals	480	1	\$24,060	1		.	\$24,060
Overhead & Profit		1		\$347,613	1		\$347,613
Off Hour Dust Control		İ	1	\$20,000	ļ	1	\$20,000
Control & Management (separate estimate)		1	1	1	ļ		
Site Prep	2,489	1	\$72,200	\$51,000	\$6,230	\$30,104	\$159,534
OMTA Operations (including shutdown)	9,158	1	\$244,400	1	1	\$314,678	\$559,078
Removal of Impacted portion Haul Rd							
Placement of 12" Protective Layer				1	ļ		
Placement of 24" Select Layer		1	1				
Placement of 36" Select Layer	2,312		\$62,790		\$480	\$32,940	\$96,210
Placement of CAT #1 1Q	2,716	1	\$73,195			\$32,745	\$105,94
Placement of CAT #1 3&4Q	5,495		\$148,101		ļ	\$66,256	\$214,356
Placement of CAT #2 & #4 Above Grade 1Q	74		\$1,830		1	\$1,595	\$3,42
Placement of CAT #2 & #4 Above Grade 3&4Q		.	1	1			
Placement of CAT #3 Palletized Transits 1Q	.			1			
Placement of CAT #3 Palletized Transits 3&4Q				1	ļ		
Placement of CAT #5 Friable Asbestos 1Q		1			ļ		
Placement of CAT #5 Friable Asbestos 3&4Q					ļ		
Placement of CAT #2 @ & Below Grade 1Q		ľ		1	i		
Placement of CAT #2 @ & Below Grade 3&4Q		1					
Placement of CAT #5 Thorium/Soil Debris 1Q	1	.	I	1			
Placement of CAT #5 Thorium/Soil Debris 3&4Q			1		1		
		1	1	1	1		
		1	1	. [ļ
		. [1				
DIRECTHIELD COSTS TOTAL	22,724	\$27.57	\$626,576	\$445,713	\$6,710	\$478,318	\$1,557,31
PM & GEN SUPER, SUP. ENG, QA, & SAFETY	3,158	\$33.61	\$106,160				\$106,16
		1	1	1			
							ĺ
		i		1			
	1						
•	·	1		ı [
HEALTH PHYSICS	127	1	\$3,500		\$26,100		\$29,6
				i . [-
PAYROLL BURDENS & BENEFITS			\$419,700				\$419,7
					1		
							1
SALES TAX					\$2,000	\$28,700	\$30,7
	3,285		\$529,360		\$28,100		
					, , , , , , , , , , , , , , , , , , , ,		
ZINDIRECT: FIETD COSTS TOTAL:		\$44.44	\$1,155,936	\$445,713	\$34,810	1 \$507.018	\$2,143,4
		\$44.44	\$1,155,936	\$445,713	\$34,810	\$507,018	\$2,143,4

ESTIMATE NO.: C2-2001-05-06 39 FACTORS CLIENT: DOE WBS NO.: 1.1.C.D FIXED PRICE S LABOR \$ S/C \$ MAT'L. \$ EQUIP. \$ PPE \$ TOTAL DFC DOLLARS S628,576 \$445,713 \$6,710 \$478,318 \$26,100 \$1,583 IFC COST FACTOR 1.8448 - 1.0000 1.0000 1.0000 1.0000 1.0000 SALES TAX - 1.0600 1.0600 1.0600 1.0600 DIRECT FIELD COST FACTOR = 1.8448 1.0000 1.0600 1.0600 1.0600 BASE ESTIMATE \$'S \$1,155,936 \$445,713 \$7,113 \$507,017 \$27,666 \$2,14 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0000 1.0000 1.0000 1.0000 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0000 1.0000 1.0000 1.0000	ESTIMA	ATE SUMM	ARY SHE	ET			
CLIENT: DOE LOCATION: FERNA WBS NO.: 1.1.C.D TASK NO.: CCPL	PROJECT: OSDF PLACEMENT FY09					DATE:	17-May-01
CLIENT: DOE LOCATION: FERNA WBS NO.: 1.1.C.D TASK NO.: CCPL	ESTIMATE NO.: C2-2001-05-06 39	ACTOR	S			ESTIMATOR:	T.WAGNER
FIXED PRICE S LABOR \$ S/C \$ MAT'L. \$ EQUIP. \$ PPE \$ TOTAL DFC DOLLARS \$626,576 \$445,713 \$6,710 \$478,318 \$26,100 \$1,58 IFC COST FACTOR 1.8448 - 1.0000 1.0000 1.0000 1.0000 SALES TAX - - 1.0600 1.0600 1.0600 DIRECT FIELD COST FACTOR = 1.8448 1.0000 1.0600 1.0600 BASE ESTIMATE \$'S \$1,155,936 \$445,713 \$7,113 \$507,017 \$27,666 \$2,14 BASE FACTOR 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600	CLIENT: DOE						FERNALD
DFC DOLLARS \$626,576 \$445,713 \$6,710 \$478,318 \$26,100 \$1,58 IFC COST FACTOR 1.8448 - 1.0000 1.0000 1.0000 - - 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0600 1.0600 1.0600 1.0600 1.0600 1.0600 1.0600 1.0600 1.0600 1.0600 1.0600 1.0600 1.0600 1.0000 <	WBS NO.: 1.1.C.D					TASK NO.:	CCPL3
1.8448	FIXED PRICE S	LABOR \$	S/C \$	MAT'L. \$	EQUIP.\$	PPE\$	TOTAL \$
1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	DFC DOLLARS	\$626,576	\$445,713	\$6,710	\$478,318	\$26,100	\$1,583,417
SALES TAX 1.0600 1.0600 1.0600 1.0600 DIRECT FIELD COST FACTOR = 1.8448 1.0000 1.0600 1.0600 1.0600 BASE ESTIMATE \$'S \$1,155,936 \$445,713 \$7,113 \$507,017 \$27,666 \$2,14 BASE FACTOR 1.0000 1.0000 1.0000 1.0000 1.0000 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600 1.0600 1.0600 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.060	IFC COST FACTOR	1.8448	- 1	1.0000	1.0000		
DIRECT FIELD COST FACTOR = 1.8448 1.0000 1.0600 1.0600 1.0600 BASE ESTIMATE \$'S \$1,155,936 \$445,713 \$7,113 \$507,017 \$27,666 \$2,14 BASE FACTOR 1.0000 1.0000 1.0000 1.0000 1.0000 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600		1.0000	1.0000				
DIRECT FIELD COST FACTOR = 1.8448 1.0000 1.0600 1.0600 1.0600 BASE ESTIMATE \$'S \$1,155,936 \$445,713 \$7,113 \$507,017 \$27,666 \$2,14 BASE FACTOR 1.0000 1.0000 1.0000 1.0000 1.0000 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600		-	- 1	1.0600	1.0600	1	
BASE ESTIMATE \$'S \$1,155,936 \$445,713 \$7,113 \$507,017 \$27,666 \$2,14 BASE FACTOR 1.0000 1.0000 1.0000 1.0000 1.0000 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600					以上,这里	TO LEASE	ACT PARTS
BASE ESTIMATE \$'S \$1,155,936 \$445,713 \$7,113 \$507,017 \$27,666 \$2,14 BASE FACTOR 1.0000		1.8448	1.0000	1.0600	1.0600	1.0600	
BASE FACTOR 1.0000 1.0000 1.0000 1.0000 1.0000 TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600							e con decid
BASE FACTOR 1.0000 1.			\$445,713	\$7,113	\$507,017	\$27,666	\$2,143,444
BASE FACTOR 1.0000 1.		A LEVEL TO THE SECOND SECOND	الكلتك وسنفتر والسندية		للقندة للدعماء	8	
TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600	BASE FACTOR		1.0000	1.0000	1.0000	1.0000	
TARGET ESTIMATE FACTOR 1.8448 1.0000 1.0600 1.0600 1.0600			22.05.50				
	TARGET ESTIMATE FACTOR	1.8448	1.0000	1.0600	1.0600	1.0600	
EPS TARGET ESTIMATE (EVOL 2) \$1 155 936 \$445 713 \$7 113 \$507 017 \$27 666 \$2 14					richtigen.	12	
PRO INCOME ESTIMATE (PTUT 3) . TITLE THE PROPERTY OF THE PROPE	FPS TARGET ESTIMATE (FY01 \$)	\$1,155,936	\$445,713	. \$7,113	\$507,017	\$27,666	\$2,143,444

F THERE ARE NO DFC EQUIP. \$, ENTER THE IFC EQUIP. \$'S INTO THE DIRECT FIELD COST TOTAL AND DELETE IFC FACTOR IN G65.

	· ·	STIMA	TE SUMN	IARY SHE	ET			
PROJECT: ESTIMATE NO:	OSDF PLACEMENT FY09 C2-2001-05-06 39	DIRE	CT FIELD	COST			DATE: ESTIMATOR:	17-May-01 T.WAGNER
CLIENT:	DOE		FACTO	1			LOCATION:	FERNALD
WBS NO.:	1.1.C.D					•	TASK NO.:	CCPL3
PAY ITEM NO.	DESCRIPTION		LABOR \$	S/C \$	MAT'L. \$ E MAT'L.\$' S)>>	EQUIP. \$	PPE\$	TOTAL \$
1	Post Award Document (Bonds & Insura		(ASSIGN OR	27100	E MAI L.\$ 3)>-		->->29600	
				\$27,100				\$27,100
2	Submittals		24060					
			\$44,390					\$44,39
3	Overhead & Profit			347613				
				\$347,610				\$347,61
4	Off Hour Dust Control			20000				
				\$20,000	٠.			\$20,00
6	Site Prep		72200	51000	6230	30104		
			\$133,200	\$51,000	\$6,600	\$31,910	\$3,760	\$226,47
7	OMTA Operations (including shutdown)		244400			314678		#707.7
			\$450,880			\$333,560	\$12,730	\$797,17
8	Removal of Impacted portion Haul Rd						-	
9	Placement of 12" Protective Layer						-	
10	Placement of 24" Select Layer						-	
11	Placement of 36" Select Layer		62790 \$115,840	i	480 \$510	1		\$154,54
								410.110
12	Placement of CAT #1 1Q		73195 \$135,030	1		32745 \$34,710	1 '	\$173,5
							'	
12	Placement of CAT #1 3&4Q		148100.8101 \$273,220	t .		\$70,230	1 *	\$351,10
13	Discompant of CAT #2 % #4 Above Cond		1830			4505	80.00	
	Placement of CAT #2 & #4 Above Grad		\$3,380	1		1595 \$1,690	1	\$5,1
13	Placement of CAT #2 & #4 Above Grad							
13	Placement of CA1 #2 & #4 Above Grau						•	
14	Placement of CAT #3 Palletized Transi							
• •	. Idealicated over we had a second of the se							
14	Placement of CAT #3 Palletized Transi						_	
15	Placement of CAT #5 Friable Asbestos						_	
							[
15	Placement of CAT #5 Friable Asbestos						-	
16	Placement of CAT #2 @ & Below G						-	
				1				
16	Placement of CAT #2 @ & Below G						-	
								-
17	Placement of CAT #5 Thorium/Soil Deb						-	
								—
17	Placement of CAT #5 Thonum/Soil Deb						-	
TOTAL DIRE	CT FIELD COSTS W/FACTORS		(FY01 DOLL	ARS)				\$2,147,1

Cost Allocation for Baseli	ne Entry
1 Post Award	\$27,100
2 Submittal	\$44,390
Subtotal	\$71,490
3 Overhead & Profit	\$347,610
4 Off Hour Dust Control	\$20,000
6 Site Prep	\$226,470
Subtotal	\$246,470
7 OMTA Operations (including shutdown) 8 Removal of Impacted portion Haul Rd	\$797,170
Subtotal	\$797,170
9 Placement of 12" Protective Layer	
10 Placement of 24" Select Layer	
11 Placement of 36" Select Layer	\$154,540
12 thru 17 Quarter 1	\$178,720
12 thru 17 Quarter 3 & 4	\$351,160
Grand Total	\$2,147,1 60
Verify old total	\$2,147,160
Match %	100.00%